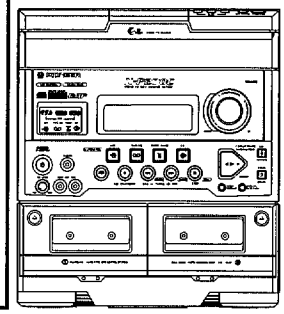
Service Manual

PIONEER®
The Art of Entertainment



ORDER NO.
RRV1703

STEREO CD CASSETTE DECK RECEIVER

XR-P270C
XR-P170C

MC-Service

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model		Power Requirement	The voltage can be converted by the following method.
	XR-P270C	XR-P170C		
RD	O	O	AC110 – 127V/220 – 240V	With the voltage selector
RDXJ	O	O	AC110 – 127V/220 – 240V	With the voltage selector
RDXJ/NC	O	O	AC110 – 127V/220 – 240V	With the voltage selector
RLXJ/NC	O	O	AC110 – 127V/220 – 240V	With the voltage selector

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1. SAFETY INFORMATION

VARO!
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVERSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING!
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

LASER
Kuva 1
Lasersateilyn varoitusmerkki

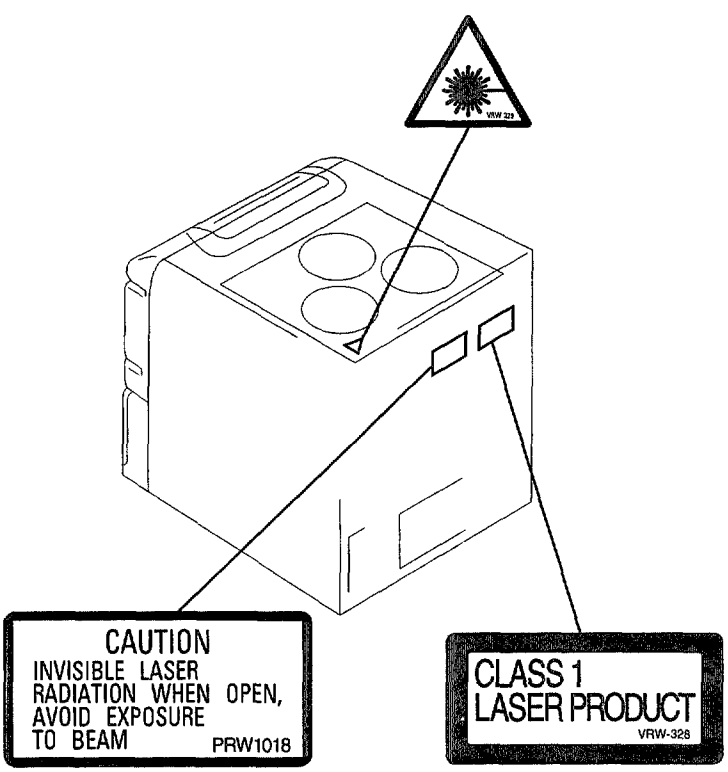
WARNING!
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

IMPORTANT
THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780-785 nm

LASER
Picture 1
Warning sign for laser radiation

LABEL CHECK (For RLXJ/NC type)



Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S8501) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S8501) is pressed physically.
   Thus, the interlock will no longer function if the switch (S8501) is released physically and deliberatery.
   The interlock also does not function in the test mode *. Laser diode oscillation will continue, if pin 62 of LA9240ML (IC8101) on the CD ASSY mounted on the $M Loading Mechanism assembly is connected to GND, or else the terminals of Q8101 are shorted to each other (fault condition).

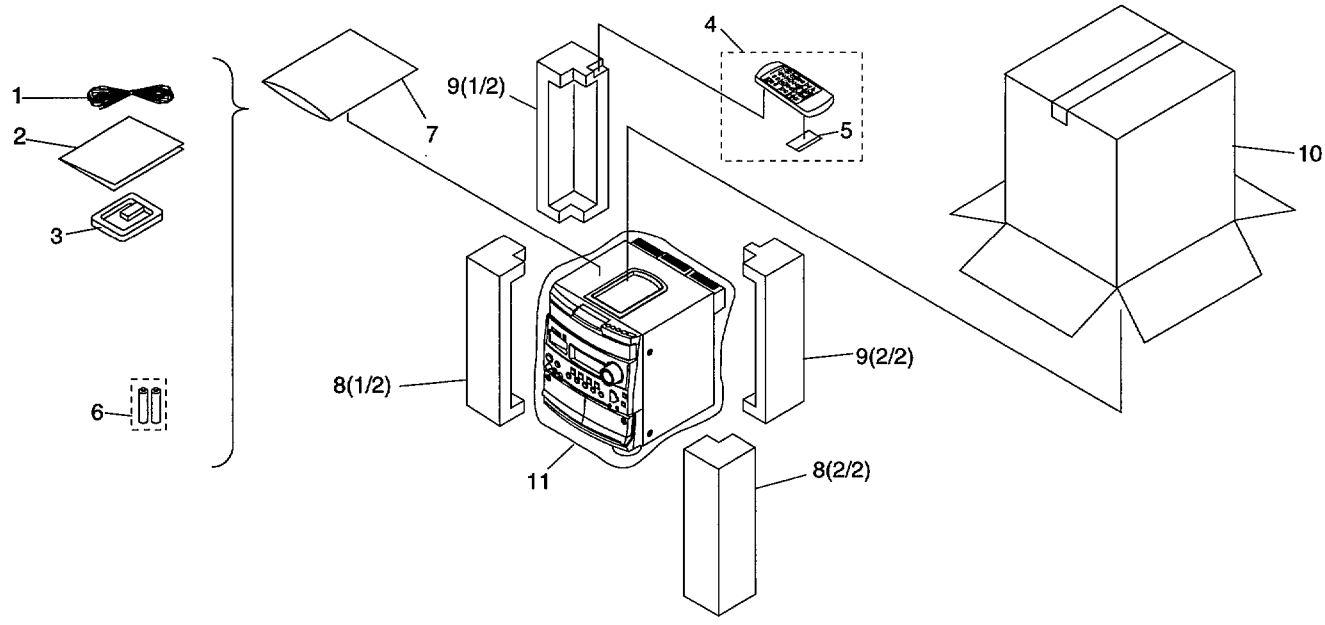
2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* : Refer to page 49.

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*

2.1 PACKING



(1) Parts List

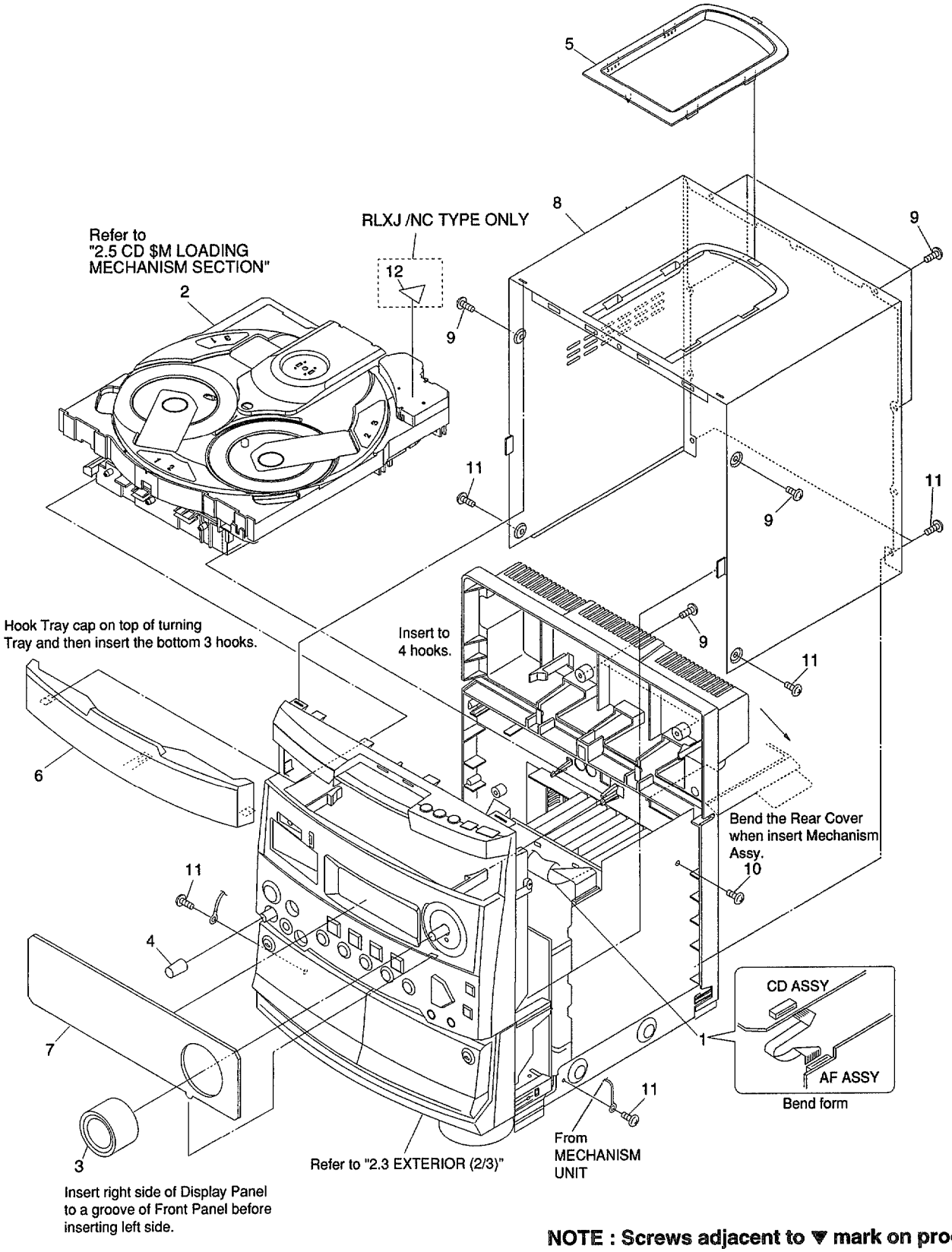
Mark	No.	Description	Parts No.
	1	FM Antenna	ADH7004
	2	Operating Instructions	See Contrast table (2)
	3	AM Loop Antenna	ATB7007
	4	Remote Control Unit	See Contrast table (2)
	5	Battery Cover	AZA7204
NSP	6	Battery (R6P, AA)	VEM – 013
	7	Polyethylene Bag (0.03X230X340)	Z21 – 038
	8	F Protector	See Contrast table (2)
	9	R Protector	See Contrast table (2)
	10	Packing Case	See Contrast table (2)
	11	Packing Sheet	AHG7003

(2) Contrast Table

XR-P270C/RD, XR-P270C/RDXJ, XR-P270C/RDXJ/NC, XR-P270C/RLXJ/NC, XR-P170C/RD, XR-P170C/RDXJ, XR-P170C/RDXJ/NC AND XR-P170C/RLXJ/NC have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.								Remarks
			XR-P270C /RD	XR-P270C /RDXJ	XR-P270C /RDXJ/NC	XR-P270C RLXJ/NC	XR-P170C /RD	XR-P170C /RDXJ	XR-P170C /RDXJ/NC	XR-P170C RLXJ/NC	
	2	Operating instructions (English/Spanish/Portuguese)	ARE7081	Not used	ARE7081	Not used	ARE7081	Not used	ARE7081	Not used	
	2	Operating instructions (English/Spanish/Chinese)	Not used	ARE7115	Not used	Not used	Not used	ARE7115	Not used	Not used	
	2	Operating instructions (English/Chinese)	Not used	Not used	Not used	ARE7106	Not used	Not used	Not used	ARE7106	
	4	Remote Control Unit (CU-XR026)	AXD7101	AXD7101	AXD7101	AXD7101	Not used	Not used	Not used	Not used	
	4	Remote Control Unit (CU-XR025)	Not used	Not used	Not used	Not used	AXD7096	AXD7096	AXD7096	AXD7096	
	8	F Protector	AHA7146	AHA7134	AHA7134	AHA7134	AHA7146	AHA7134	AHA7134	AHA7134	
	9	R Protector	AHA7147	AHA7135	AHA7135	AHA7135	AHA7147	AHA7135	AHA7135	AHA7135	
	10	Packing Case	AHD7380	AHD7373	AHD7423	AHD7423	AHD7379	AHD7344	AHD7422	AHD7422	

2.2 EXTERIOR (1/3)



NOTE : Screws adjacent to ▼ mark on product are used for disassembly. However, there is no indication on the hood installation screws of the Rear Cover.

(1) Parts List

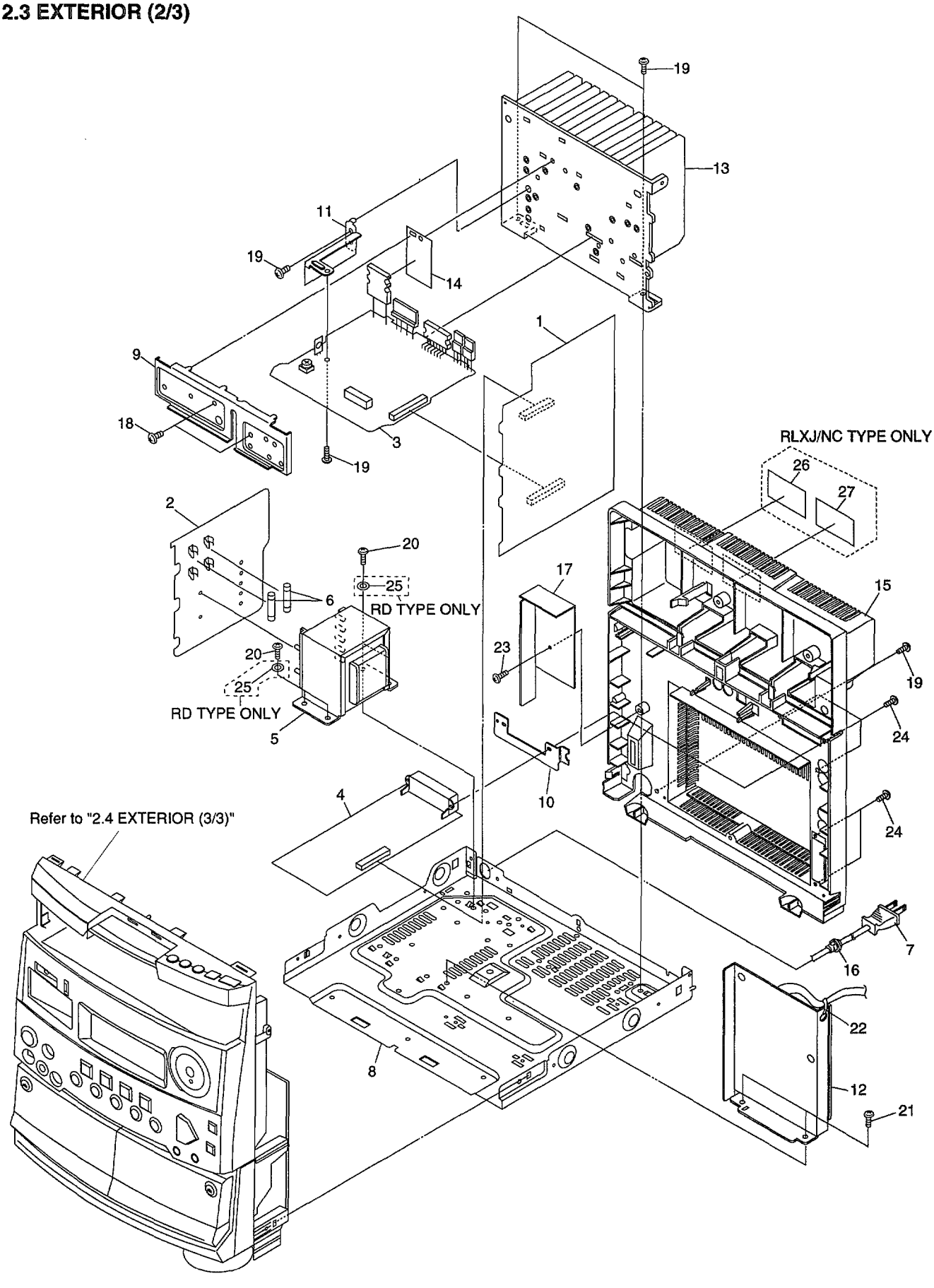
Mark	No.	Description	Parts No.
	1	20P F.F.C/30V	ADD7041
NSP	2	CD $M Loading Mechanism	AXA7037
	3	Volume Knob	AAA7001
	4	Mic Knob	AAB7102
	5	TOP Window	AAK7279
	6	Tray Cap	See Contrast table (2)
	7	Display Panel	See Contrast table (2)
	8	Bonnet Case	AZN7657
	9	Screw	BPZ30P100FZK
	10	Screw	BPZ30P080FMC
	11	Screw	VBZ30P080FZK
	12	Caution Label (G)	See Contrast table (2)

(2) Contrast Table

XR-P270C/RD, XR-P270C/RDXJ, XR-P270C/RDXJ/NC, XR-P270C/RLXJ/NC, XR-P170C/RD, XR-P170C/RDXJ, XR-P170C/RDXJ/NC AND XR-P170C/RLXJ/NC have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.								Remarks
			XR-P270C /RD	XR-P270C /RDXJ	XR-P270C /RDXJ/NC	XR-P270C RLXJ/NC	XR-P170C /RD	XR-P170C /RDXJ	XR-P170C /RDXJ/NC	XR-P170C RLXJ/NC	
	6	Tray Cap	AAK7327	AAK7327	AAK7327	AAK7327	AAK7280	AAK7280	AAK7280	AAK7280	
	7	Display Panel	AAK7328	AAK7328	AAK7328	AAK7328	AAK7281	AAK7281	AAK7281	AAK7281	
	12	Caution Label (G)	Not used	Not used	Not used	VRW – 329	Not used	Not used	Not used	VRW – 329	

2.3 EXTERIOR (2/3)



(1) Parts List

Mark	No.	Description	Parts No.
NSP	1	AF ASSY	See Contrast table (2)
	2	TRANS ASSY	See Contrast table (2)
	3	POWER ASSY	See Contrast table (2)
	4	FM/AM TUNER MODULE	See Contrast table (2)
⚠	5	T1 Power Transformer	See Contrast table (2)
⚠	6	FU1, FU2 Fuse	See Contrast table (2)
⚠	7	AC Power Cord	See Contrast table (2)
NSP	8	Chassis	ANA7051
	9	Bracket A	ANG7100
	10	GND Plate	ANG7106
	11	Bracket B	ANG7107
	12	Shield Plate	ANG7118
	13	Heat Sink	See Contrast table (2)
	14	Mica Sheet	AEE7015
	15	Rear Cover	AMC7001
	16	Strain relief	CM – 22B
	17	Barrier	ANK7029
	18	Screw	BBZ30P120FMC
	19	Screw	VBZ30P080FZK
	20	Screw	See Contrast table (2)
	21	Screw	See Contrast table (2)
	22	Binder	See Contrast table (2)
	23	Screw	BPZ30P080FMC
	24	Screw	BPZ30P100FZK
	25	Washer	See Contrast table (2)
NSP	26	Caution Label (F)	See Contrast table (2)
	27	Caution Label	See Contrast table (2)

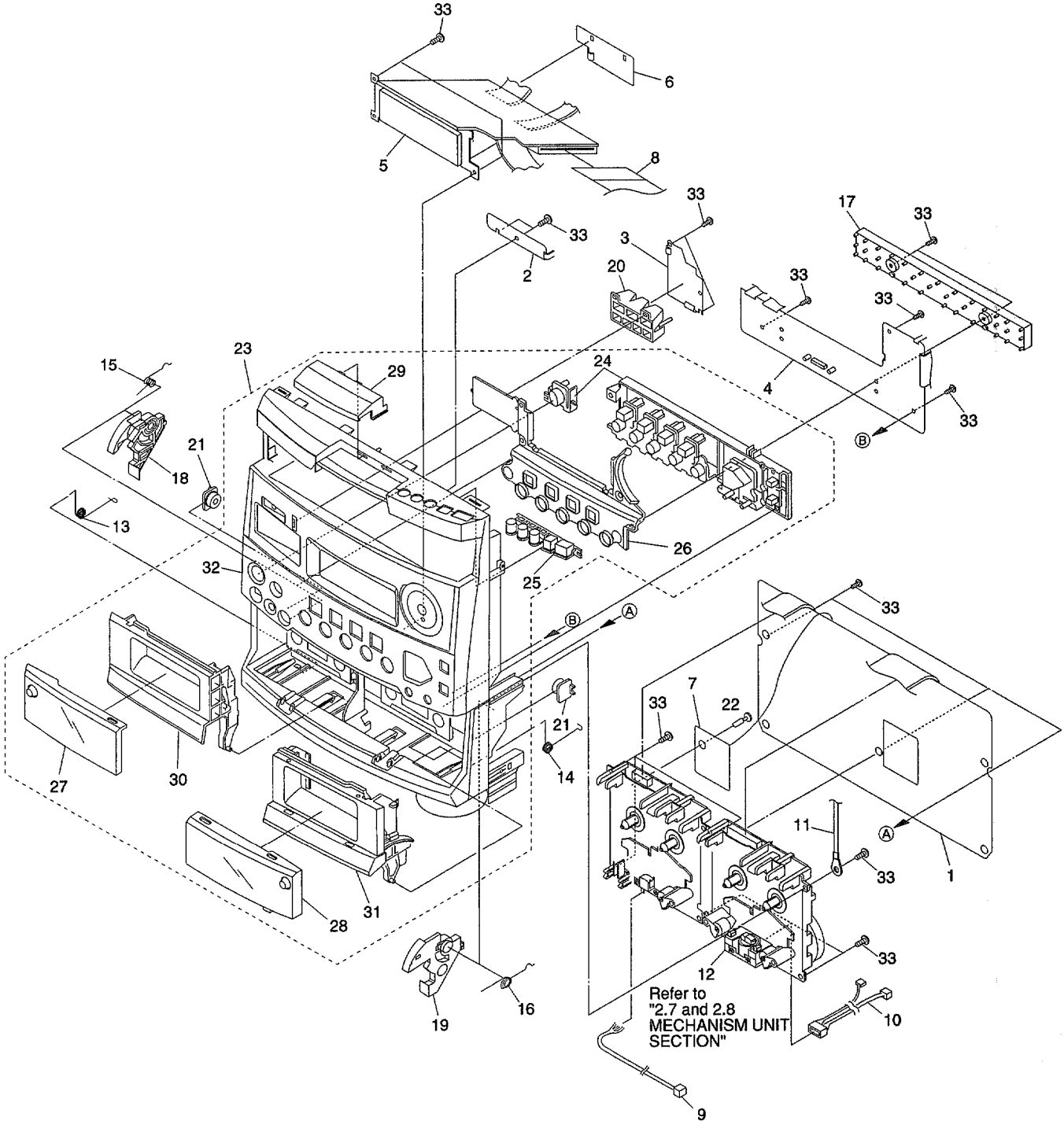
Note: The GND Plate (No.10) will tend to come off once it is removed, as the plate is fit with light pressure. If you have to remove the plate, secure it onto the Rear Cover with adhesive tape for reinstallation.

(2) Contrast Table

XR-P270C/RD, XR-P270C/RDXJ, XR-P270C/RDXJ/NC, XR-P270C/RLXJ/NC, XR-P170C/RD, XR-P170C/RDXJ, XR-P170C/RDXJ/NC AND XR-P170C/RLXJ/NC have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.								Remarks
			XR-P270C /RD	XR-P270C /RDXJ	XR-P270C /RDXJ/NC	XR-P270C RLXJ/NC	XR-P170C /RD	XR-P170C /RDXJ	XR-P170C /RDXJ/NC	XR-P170C RLXJ/NC	
NSP	1	AF ASSY	AWM7250	AWM7250	AWM7250	AWM7250	AWM7238	AWM7238	AWM7238	AWM7238	
	2	TRANS ASSY	AWZ8533	AWZ8533	AWZ8533	AWZ8533	AWZ8430	AWZ8430	AWZ8430	AWZ8430	
	3	POWER ASSY	AWZ8534	AWZ8534	AWZ8534	AWZ8534	AWZ8432	AWZ8432	AWZ8432	AWZ8432	
	4	FM/AM TUNER MODULE	AXQ7051	AXQ7061	AXQ7061	AXQ7061	AXQ7051	AXQ7061	AXQ7061	AXQ7061	
⚠	5	T1 Power Transformer	ATS7139	ATS7139	ATS7139	ATS7139	ATS7135	ATS7135	ATS7135	ATS7135	
⚠	6	FU1, FU2 Fuse (1.0A)	REK1022	REK1022	REK1022	REK1022	Not used	Not used	Not used	Not used	
⚠	6	FU1, FU2 Fuse (800mA)	Not used	Not used	Not used	Not used	REK1021	REK1021	REK1021	REK1021	
⚠	7	AC Power Cord	PDG1013	ADG1157	ADG1157	PDG1058	PDG1013	ADG1157	ADG1157	PDG1058	
	13	Heat Sink	ANH7047	ANH7047	ANH7047	ANH7047	ANH7048	ANH7048	ANH7048	ANH7048	
	20	Screw	PSA40P080FZB	ABA7031	ABA7031	ABA7031	PSA40P080FZB	ABA7031	ABA7031	ABA7031	
	21	Screw	BSZ40P060FZK	ASZ40P060FMC	ASZ40P060FMC	ASZ40P060FMC	BSZ40P060FZK	ASZ40P060FMC	ASZ40P060FMC	ASZ40P060FMC	
	22	Binder	Z09 – 056	ZCA – SKB90BK	ZCA – SKB90BK	ZCA – SKB90BK	Z09 – 056	ZCA – SKB90BK	ZCA – SKB90BK	ZCA – SKB90BK	
	25	Washer	WA40F100M050	Not used	Not used	Not used	WA40F100M050	Not used	Not used	Not used	
NSP	26	Caution Label (F)	Not used	Not used	Not used	VRW – 328	Not used	Not used	Not used	VRW – 328	
	27	Caution Label	Not used	Not used	Not used	PRW1018	Not used	Not used	Not used	PRW1018	

2.4 EXTERIOR (3/3)



(1) Parts List

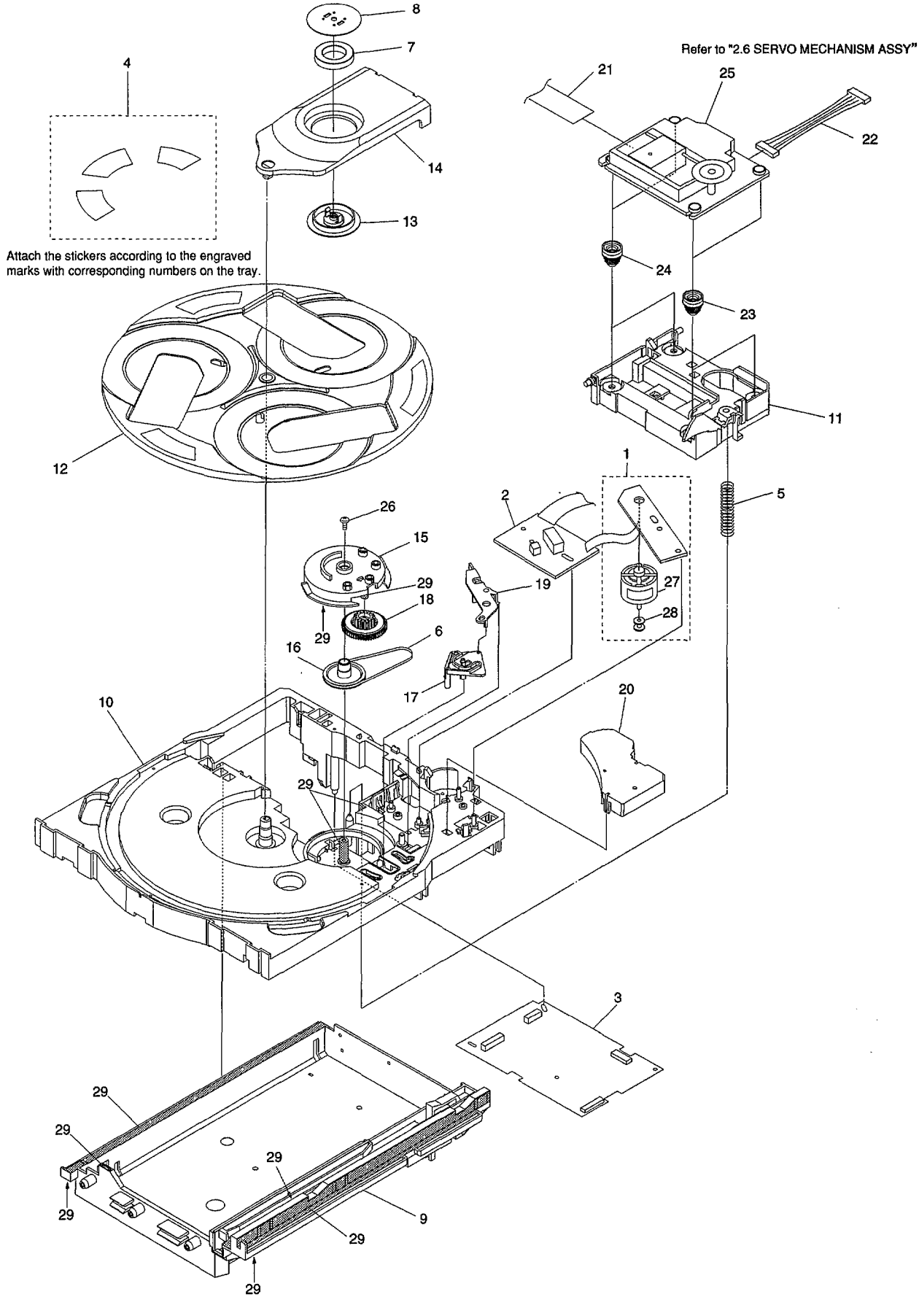
Mark	No.	Description	Parts No.
	1	DECK ASSY	AWZ8436
	2	CD SW ASSY	AWZ8438
	3	LED ASSY	AWZ8439
	4	DISPLAY ASSY	See Contrast table (2)
	5	LCD ASSY	See Contrast table (2)
	6	LAMP ASSY	See Contrast table (2)
NSP	7	SHIELD ASSY	AWZ8745
	8	Flexible Cable 40P20	ADD7040
	9	Connector Assy 3P	ADE7011
	10	Connector Assy 5P	ADE7012
NSP	11	Cord With Plag	DE015VF0
	12	Mechanism Unit	RYM1253
	13	Door Spring L	ABH7128
	14	Door Spring R	ABH7129
	15	Ratch Spring L	ABH7130
	16	Ratch Spring R	ABH7131
	17	PCB Holder	AMD7001
	18	Ratch Mold L	AMR7128
	19	Ratch Mold R	AMR7129
	20	LED Holder	AMR7130
	21	Damper Assy	AXA7038
	22	Push Rivet	AEC7071
NSP	23	Front Panel ASSY	See Contrast table (2)
	24	Button A	AAD7314
	25	Button B	AAD7315
	26	LT Conductor	AAK7275
	27	Door Window L	AAK7276
	28	Door Window R	AAK7277
	29	CD Window	AAK7278
	30	Door Pocket L	AAN7143
	31	Door Pocket R	AAN7144
	32	Front Panel	See Contrast table (2)
	33	Screw	BPZ30P080FMC

(2) Contrast Table

XR-P270C/RD, XR-P270C/RDXJ, XR-P270C/RDXJ/NC, XR-P270C/RLXJ/NC, XR-P170C/RD, XR-P170C/RDXJ, XR-P170C/RDXJ/NC AND XR-P170C/RLXJ/NC have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.								Remarks
			XR-P270C /RD	XR-P270C /RDXJ	XR-P270C /RDXJ/NC	XR-P270C RLXJ/NC	XR-P170C /RD	XR-P170C /RDXJ	XR-P170C /RDXJ/NC	XR-P170C RLXJ/NC	
	4	DISPLAY ASSY	AWZ8535	AWZ8535	AWZ8535	AWZ8535	AWZ8434	AWZ8434	AWZ8434	AWZ8434	
	5	LCD ASSY	AWZ8536	AWZ8536	AWZ8536	AWZ8536	AWZ8435	AWZ8435	AWZ8435	AWZ8435	
	6	LAMP ASSY	AWZ8537	AWZ8537	AWZ8537	AWZ8537	AWZ8437	AWZ8437	AWZ8437	AWZ8437	
NSP	23	Front Panel ASSY	AXG7002	AXG7002	AXG7002	AXG7002	AXG7001	AXG7001	AXG7001	AXG7001	
	32	Front Panel	AMB7380	AMB7380	AMB7380	AMB7380	AMB7379	AMB7379	AMB7379	AMB7379	

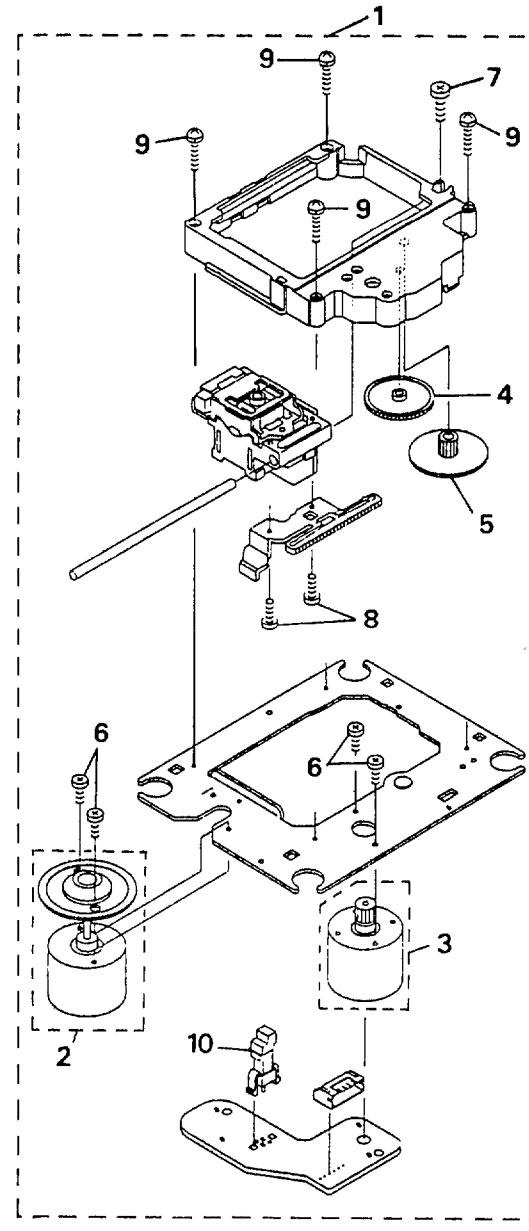
2.5 CD $M LOARDING MECHANISM SECTION



Parts List

Mark	No.	Description	Parts No.
	1	MOTOR ASSY	AWZ8428
NSP	2	SW ASSY	AWZ8429
	3	CD ASSY	AWZ8427
	4	Disc Label	AAX7371
	5	Servo Spring	ABH7126
	6	Belt	AEB7072
	7	Clamp Magnet	AMF7001
	8	Yoke	ANB7067
	9	Mecha Base	ANW7087
	10	Loading Tray	ANW7088
	11	Servo Base	ANW7089
	12	Rotary Tray	ANW7090
	13	Clamper	ANW7091
	14	Clamper Holder	ANW7092
	15	Main Cam	ANW7093
	16	Gear Pully	ANW7094
	17	Lock Lever	ANW7095
	18	Planet Gear	ANW7096
	19	Actuater	ANW7097
	20	Motor Cover	ANW7098
	21	15P F.F.C/30V	ADD7038
	22	Connector Assy (6P)	ADE7010
	23	Float Rubber A	AEB7063
	24	Float Rubber B	AEB7066
	25	Servo Mechanism Assy	AXA7039
	26	Screw	IPZ30P080FMC
	27	Carriage Motor	VXM1033
	28	Motor Pully	PNW1634
	29	Ha Narl	GEM1016

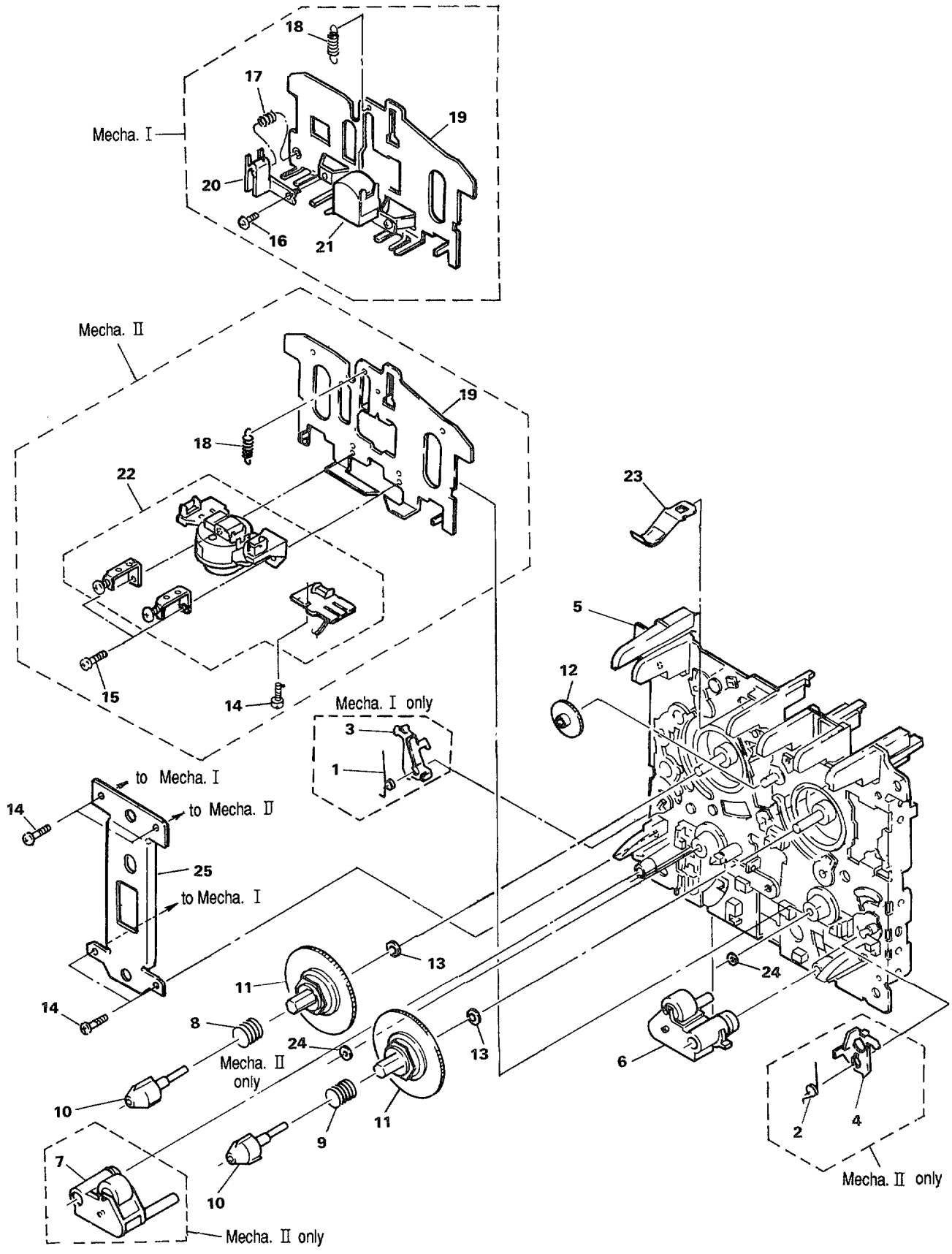
2.6 SERVO MECHANISM ASSY



Parts List

Mark	No.	Description	Parts No.
	1	Servo Mechanism	AXA7039
	2	SPINDLE MOTOR ASSY	AEA7009
	3	SLEAD MOTOR ASSY	AEA7010
	4	Gear A	AEA7013
	5	Gear B	AEA7014
	6	Screw	AEA7015
	7	Screw	AEA7016
	8	Screw	AEA7017
	9	Screw	AEA7018
	10	Leaf Switch	AEA7011

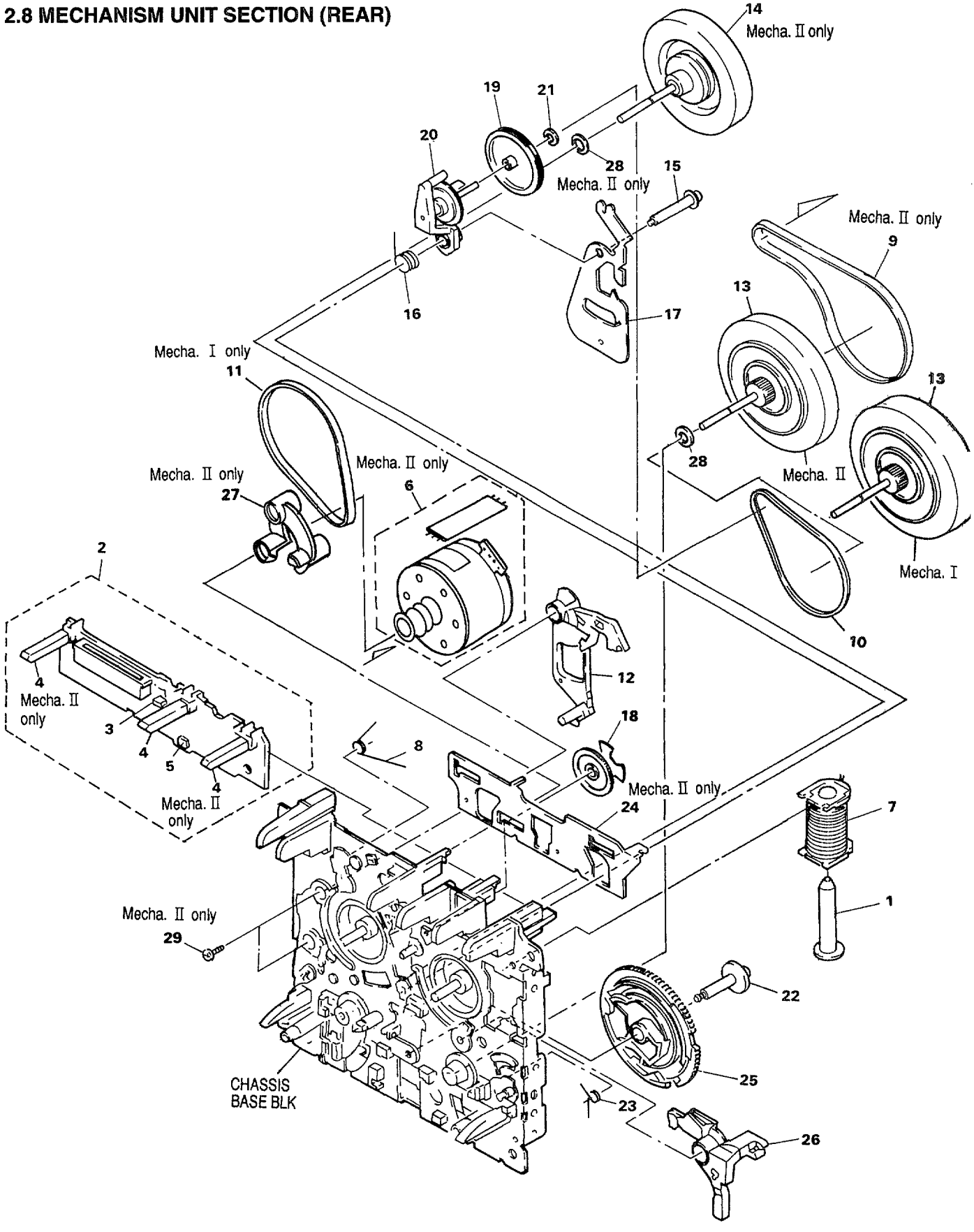
2.7 MECHANISM UNIT SECTION (FRONT)



Parts List

Mark	No.	Description	Parts No.
	1	SP Interlock L (Mecha. I only)	RBH1385
	2	SP Interlock R (Mecha. II only)	RBH1386
	3	Arm Interlock L (Mecha. I only)	RNE1780
	4	Arm Interlock R (Mecha. II only)	RNE1781
	5	Chassis Base BLK (Mecha. I)	RXA1627
	5	Chassis Base BLK (Mecha. II)	RXA1626
	6	Roller Pinch BLK R (Mecha. I)	RXA1630
	6	Roller Pinch BLK R (Mecha. II)	RXA1628
	7	Roller Pinch BLK L (Mecha. II only)	RXA1629
	8	SP Reel (L)	RBH1388
	9	SP Reel (R)	RBH1389
	10	Reel Feather	RNK2072
	11	Reel Base	RNK2073
	12	Play Gear (A)	RNK2074
	13	Washer	WA41D065D025
	14	Screw	PCZ20P040FMC
	15	Screw	PMZ20P060FMC
	16	Screw M3×10	RBA1031
	17	Spring	RBH1076
	18	Spring HB	RBH1390
	19	Head Base (Mecha. I)	RNE1906
	19	Head Base (Mecha. II)	RNE1783
	20	Tape Guide (Mecha. I only)	RNK2077
	21	R/P Head (Mecha. I only)	RPB1061
	22	Plate HD BLK (Mecha. II only)	RXA1746
	23	SP Cassette	RNE1786
	24	Washer	WT15D040D050
	25	Mecha Bracket	RNE1907

2.8 MECHANISM UNIT SECTION (REAR)



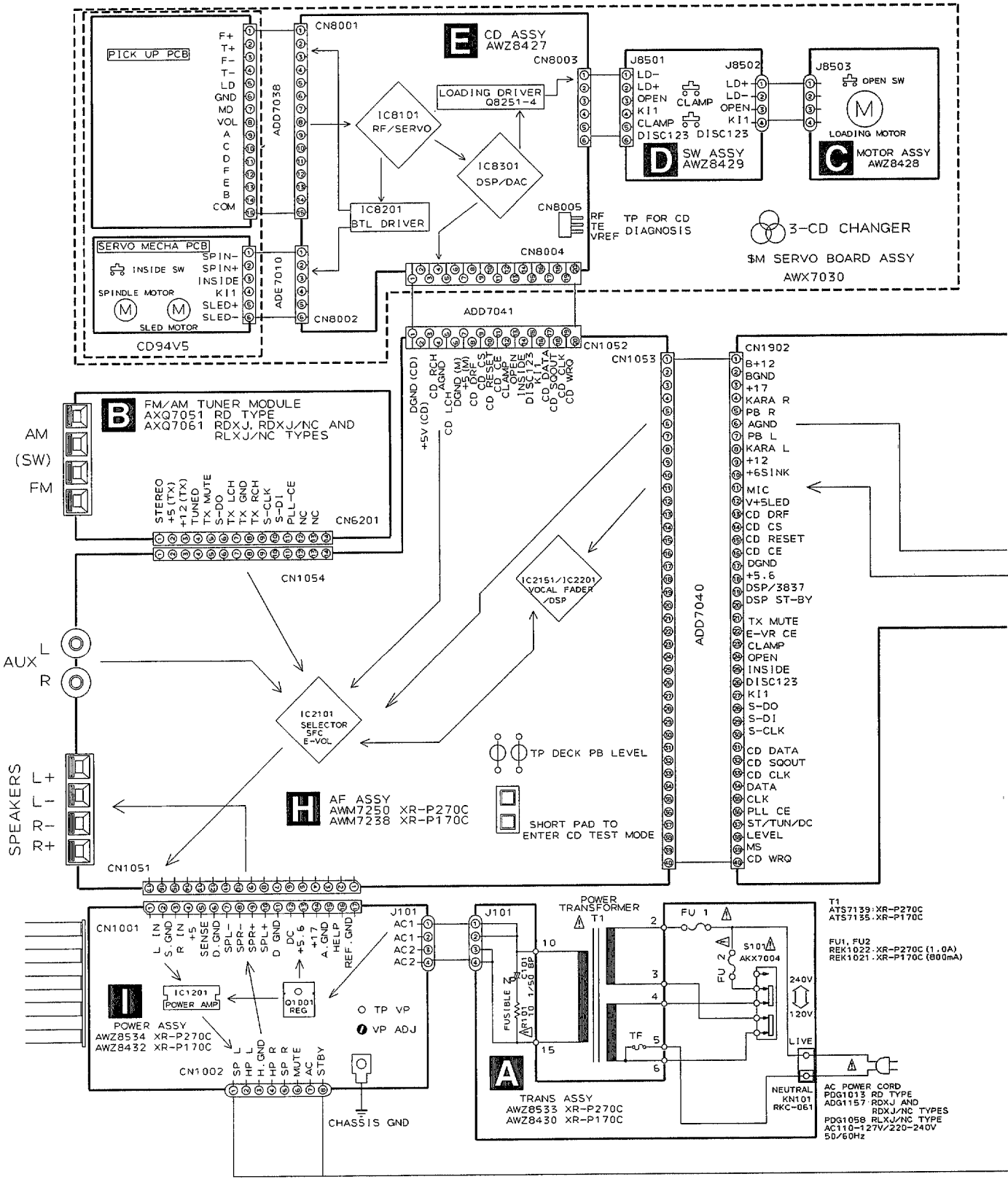
Parts List

Mark	No.	Description	Parts No.
	1	Plunger	PLA1288
	2	PCB Control BLK (Mecha. I)	RXA1742
	2	PCB Control BLK (Mecha. II)	RXA1743
	3	Switch	RSG1018
	4	SPLF	RSN1023
	5	Photo-Transistor	SPI33534FG
	6	MTR Main BLK (Mecha. II only)	RXM1086
	7	Solenoid BLK	RXP1021
	8	SP Brake	RBH1387
	9	Main Belt (Mecha. II only)	REB1157
	10	F/R Belt	REB1254
	11	Joint Belt (Mecha. I only)	REB1307
	12	Lever Brake	RNK2071
	13	Clutch ASSY BLK (Mecha. I)	RXA1744
	13	Clutch ASSY BLK (Mecha. II)	RXA1745
	14	ASSY F/W (Mecha. II only)	RXA1769
	15	Screw 2-6X3.5	RBA1120
	16	Cam SP	RBH1393
	17	Lever F/R	RNE1782
	18	FF Gear (A)	RNK2075
	19	F/R Pulley	RNK2076
	20	Clutch ASSY BLK	RXA1632
	21	Washer	WA17D040D025
	22	Screw 2-9X3.5	RBA1121
	23	SP Arm Play (Mecha. I)	RBH1391
	23	SP Arm Play (Mecha. II)	RBH1392
	24	Plate Slide (Mecha. II only)	RNE1785
	25	Cam Gear	RNK2078
	26	Arm Play	RNK2079
	27	Motor Spacer (Mecha. II only)	RNK2244
	28	Washer	WA26D045D025
	29	Screw	PMA26P140FMC

3. SCHEMATIC DIAGRAM

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST "or "PCB PARTS LIST".

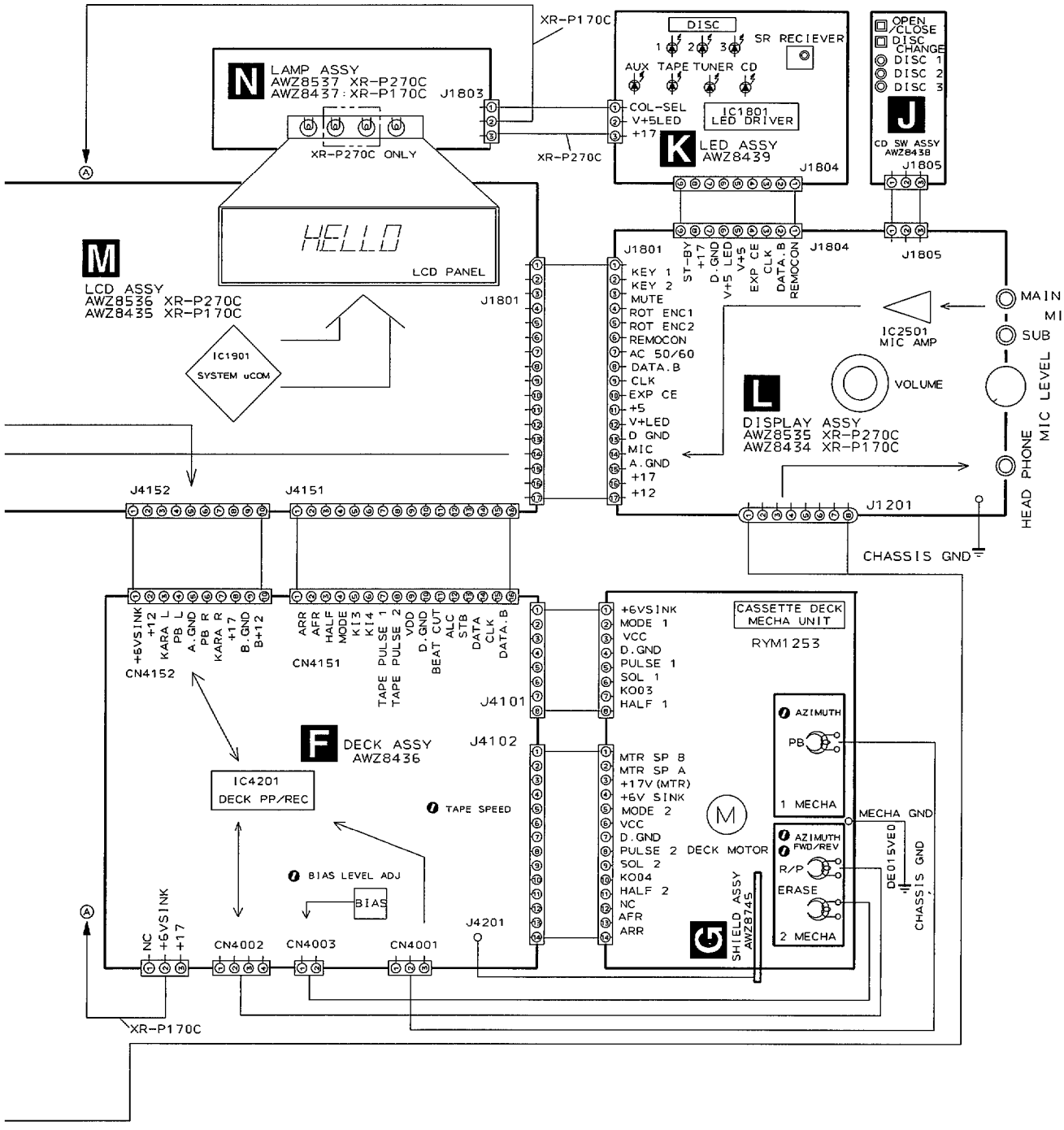
3.1 OVERALL CONNECTION AND TRANS ASSY



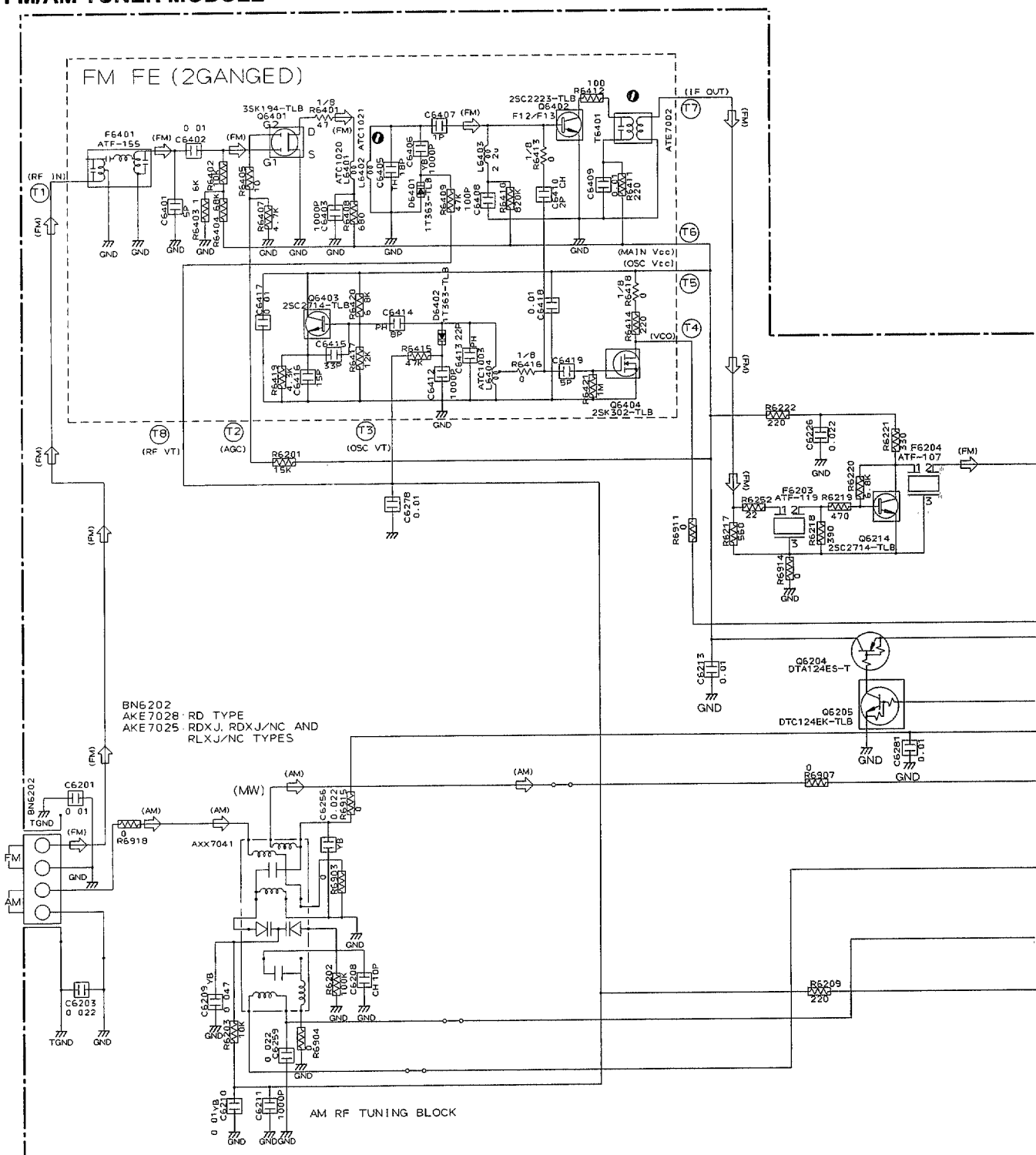
● NOTE FOR FUSE REPLACEMENT

CAUTION — FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

A

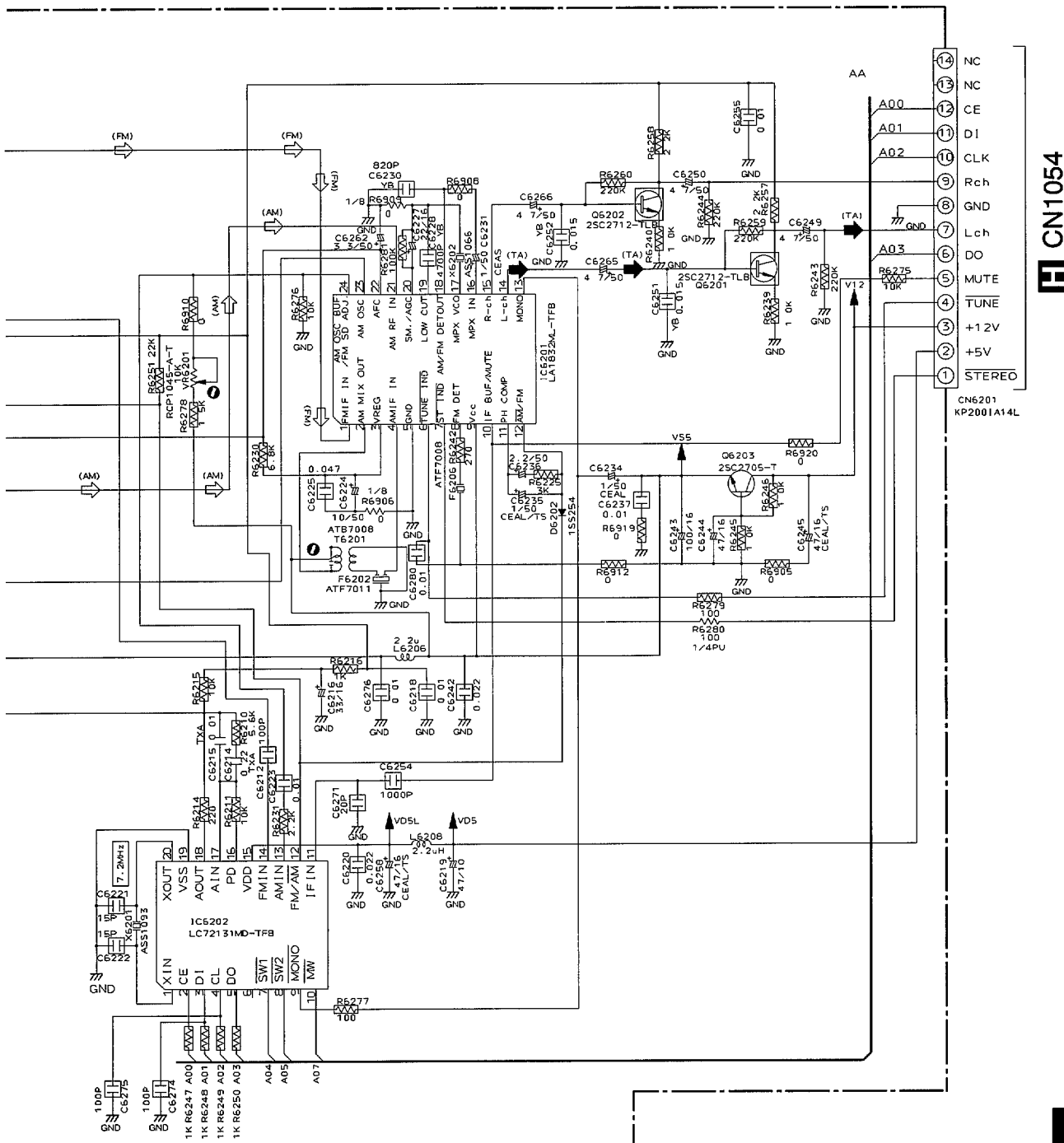

N LAMP ASSY
AWZ8537 XR-P270C
AWZ8437 XR-P170C
J1803
XR-P270C ONLY
XR-P170C
XR-P170C
DISC
1 2 3
SR RECIEVER
AUX TAPE TUNER CD
COL-SEL
V+5LED
+17
IC1801
LED DRIVER
K LED ASSY
AWZ8439
J1804
OPEN /CLOSE
DISC CHANGE
DISC 1
DISC 2
DISC 3
J
CD SW ASSY
AWZ8438
J1805
M
LCD ASSY
AWZ8536 XR-P270C
AWZ8435 XR-P170C
LCD PANEL
J1801
IC1901
SYSTEM uCOM
KEY 1
KEY 2
MUTE
ROT ENC1
ROT ENC2
REMOCON
AC 50/60
DATA.B
CLK
EXP CE
+5
V+LED
D GND
MIC
A.GND
+17
+12
ST-BY
+17
D.GND
V+5 LED
V+5
EXP CE
CLK
DATA.B
REMOCON
IC2501
MIC AMP
MAIN MIC
SUB
VOLUME
L
DISPLAY ASSY
AWZ8535 XR-P270C
AWZ8434 XR-P170C
MIC LEVEL
HEAD PHONE
J4152
J4151
J1201
CHASSIS GND
+6VSINK
+12
KARA L
PB L
A.GND
PB R
KARA R
+17
B.GND
B+12
CN4152
ARR
AFR
HALF
MODE
KI3
KI4
TAPE PULSE 1
TAPE PULSE 2
VDD
D.GND
BEAT CUT
ALC
STB
DATA
CLK
DATA.B
CN4151
J4101
J4102
F DECK ASSY
AWZ8436
IC4201
DECK PP/REC
TAPE SPEED
BIAS LEVEL ADJ
BIAS
+6VSINK
MODE 1
VCC
D.GND
PULSE 1
SOL 1
KO03
HALF 1
MTR SP B
MTR SP A
+17V (MTR)
+6V SINK
MODE 2
VCC
D.GND
PULSE 2
SOL 2
KO04
HALF 2
NC
AFR
ARR
CASSETTE DECK
MECHA UNIT
RYM1253
AZIMUTH
PB
1 MECHA
AZIMUTH
FWD/REV
R/P
ERASE
2 MECHA
DECK MOTOR
MECHA GND
DE01SVED
CHASSIS GND
SHIELD ASSY
AWZ8745
J4201
NC
+6VSINK
+17
CN4002
CN4003
CN4001
XR-P170C

3.2 FM/AM TUNER MODULE

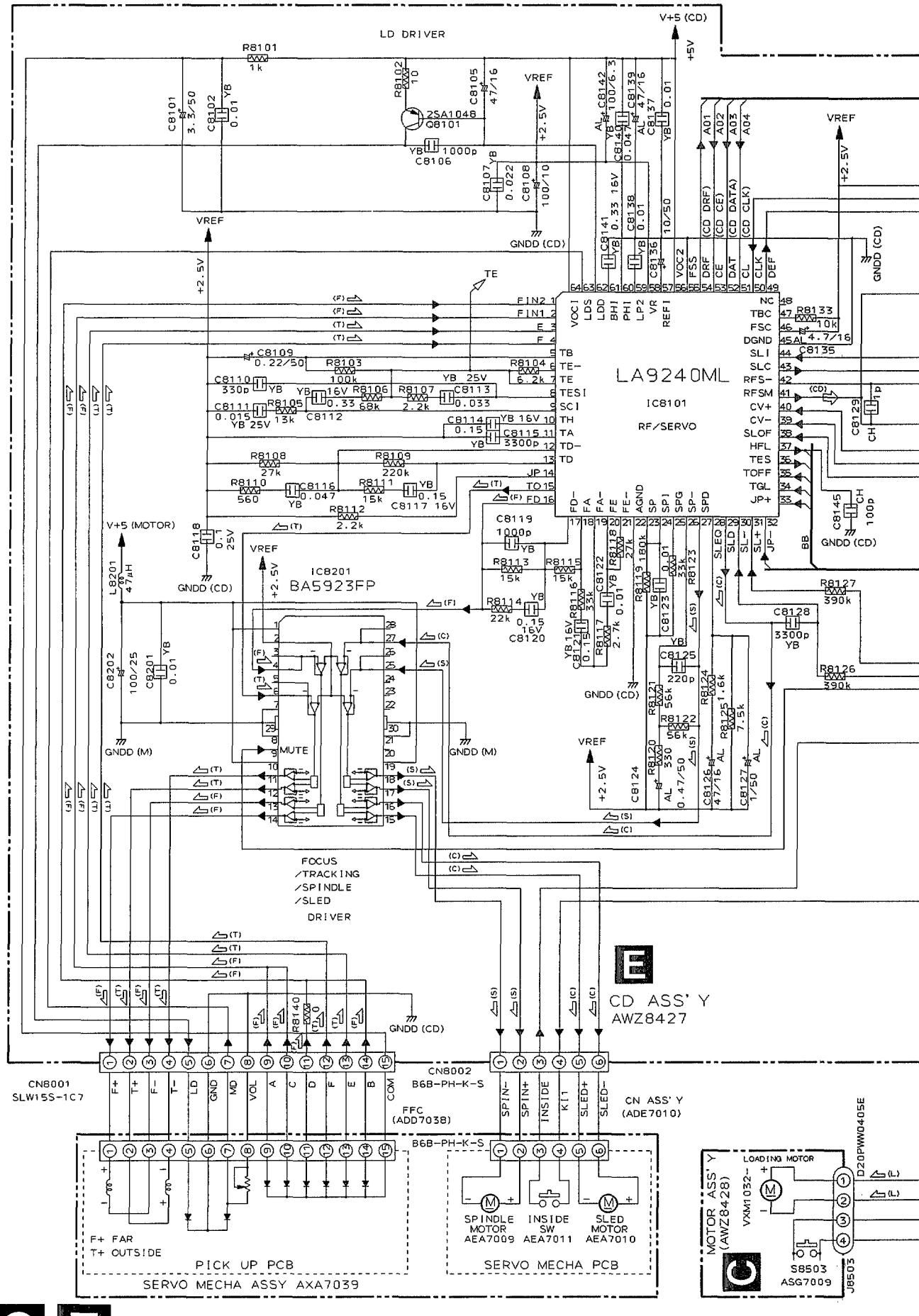


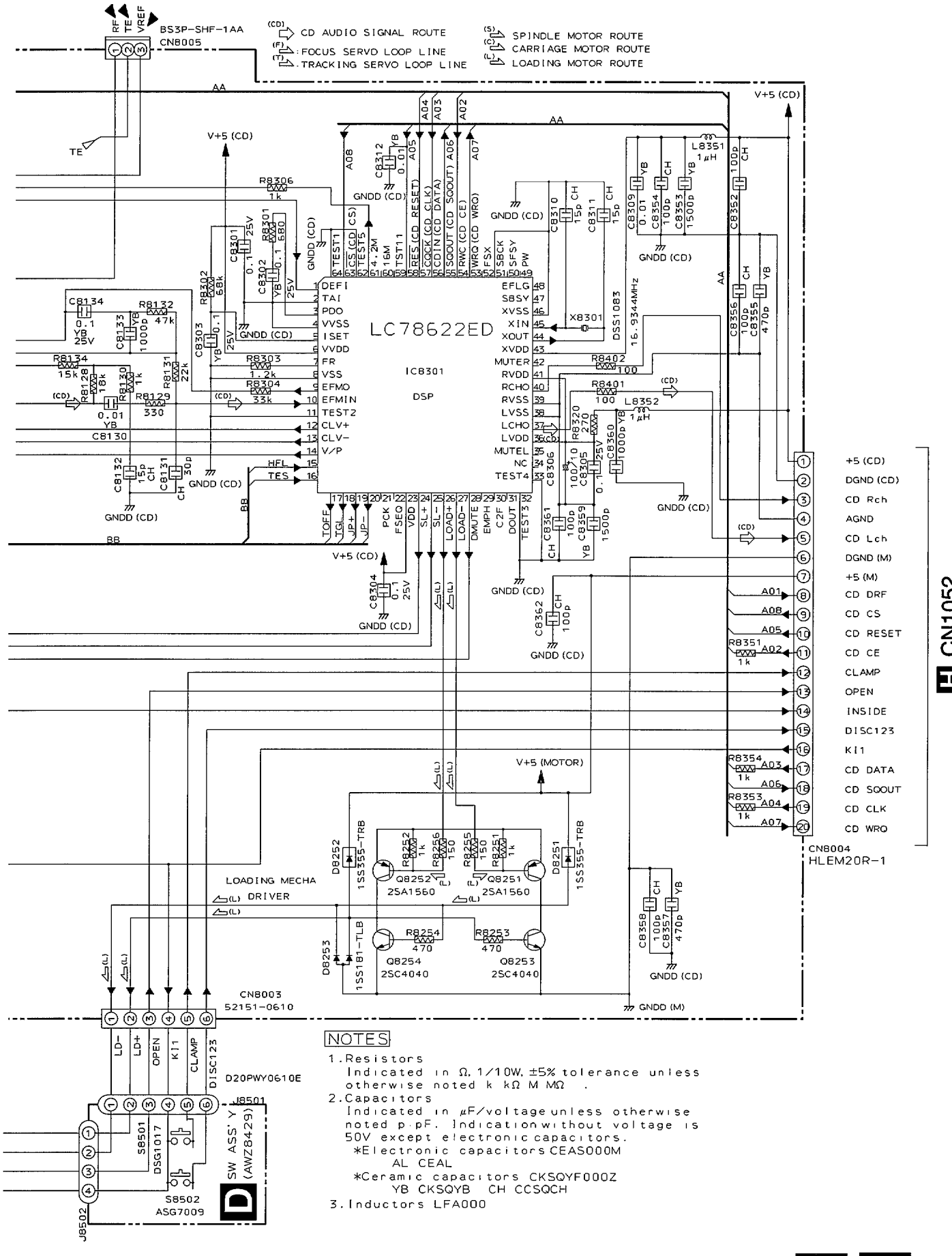
Notes

1. RESISTORS
   Indicated in Ω, 1/10W±5% Tolerance unless otherwise noted K:KΩ, M:MΩ.
2. CAPACITORS
   Indicated in Capacity(μF)/VOLTAGE(V) unless otherwise noted P:PF.



3.3 MOTOR ASSY, SW ASSY AND CD ASSY

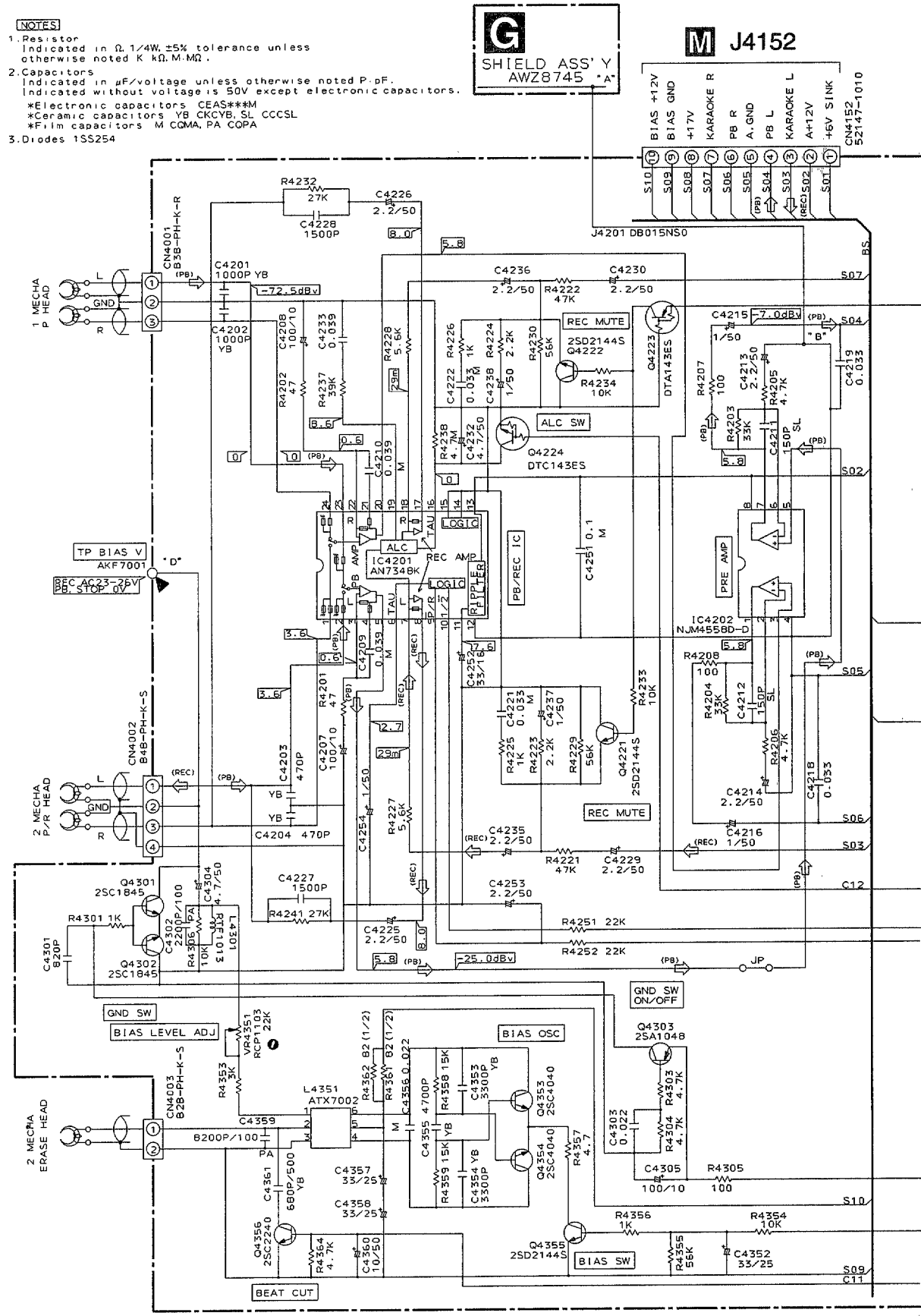


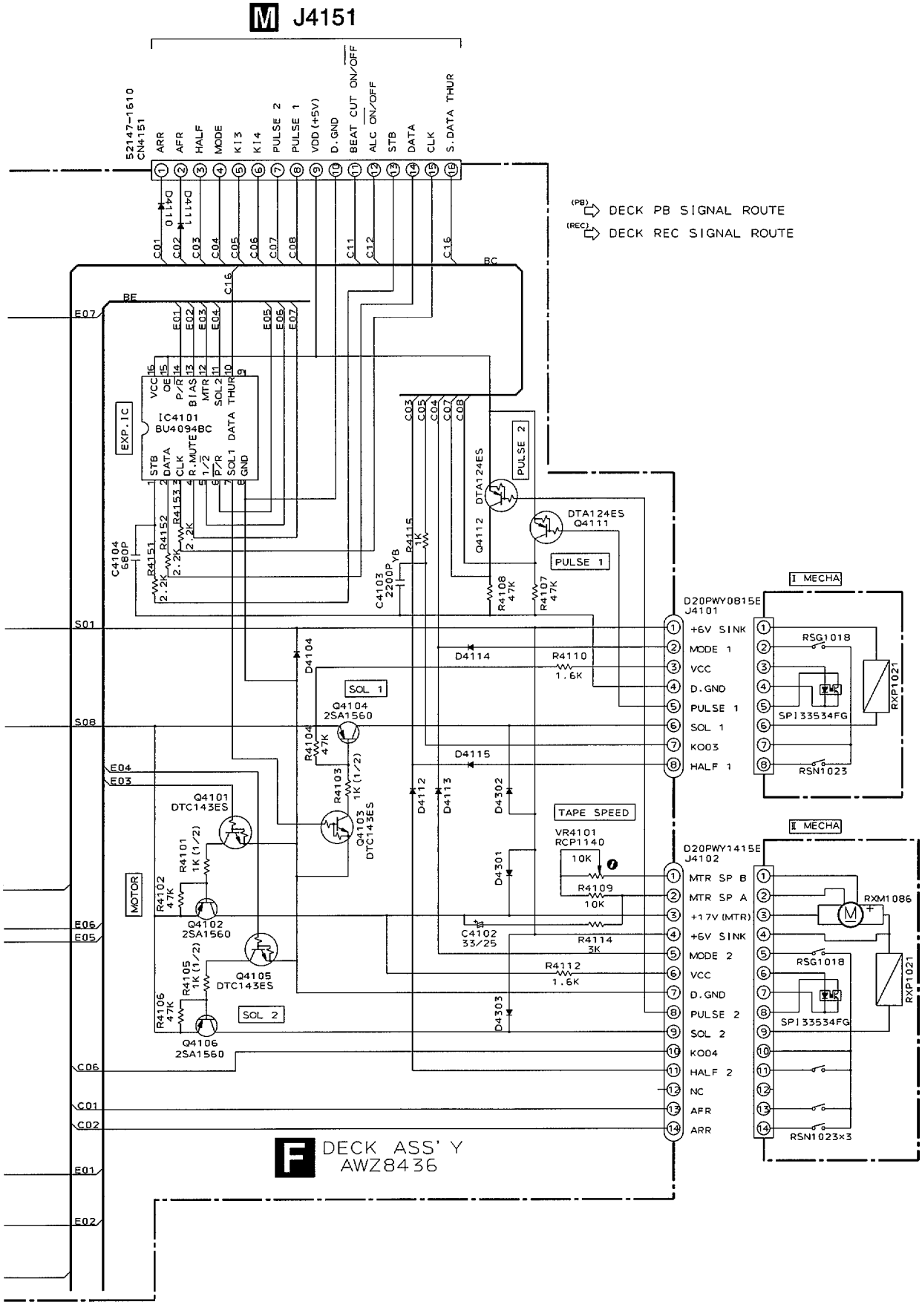


NOTES

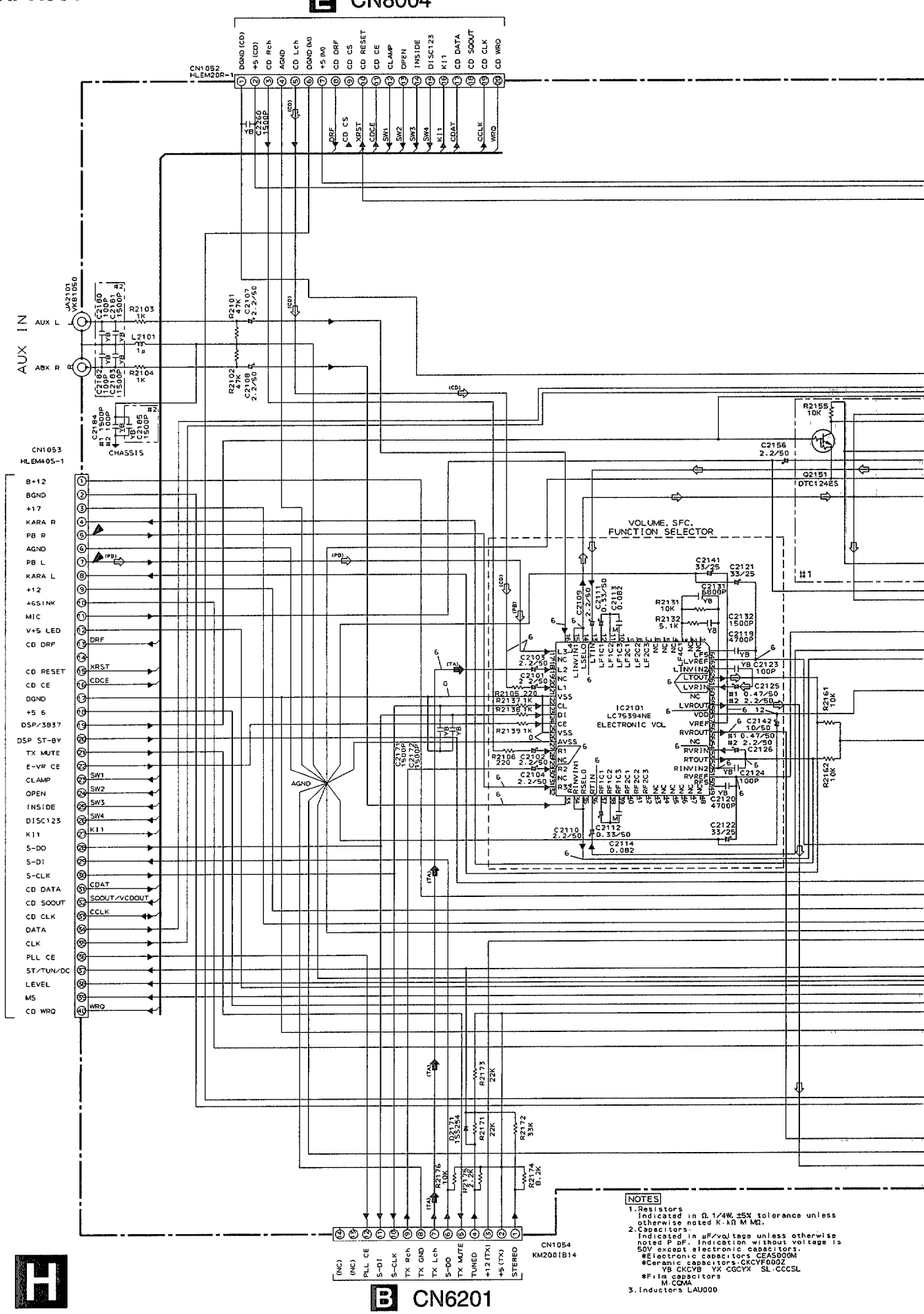
1. Resistors
   Indicated in Ω, 1/10W, ±5% tolerance unless otherwise noted k kΩ M MΩ .
2. Capacitors
   Indicated in μF/voltage unless otherwise noted p pF. Indication without voltage is 50V except electronic capacitors.
   *Electronic capacitors CEAS000M
   AL CEAL
   *Ceramic capacitors CKSQYF000Z
   YB CKSQYB CH CCSQCH
3. Inductors LFA000

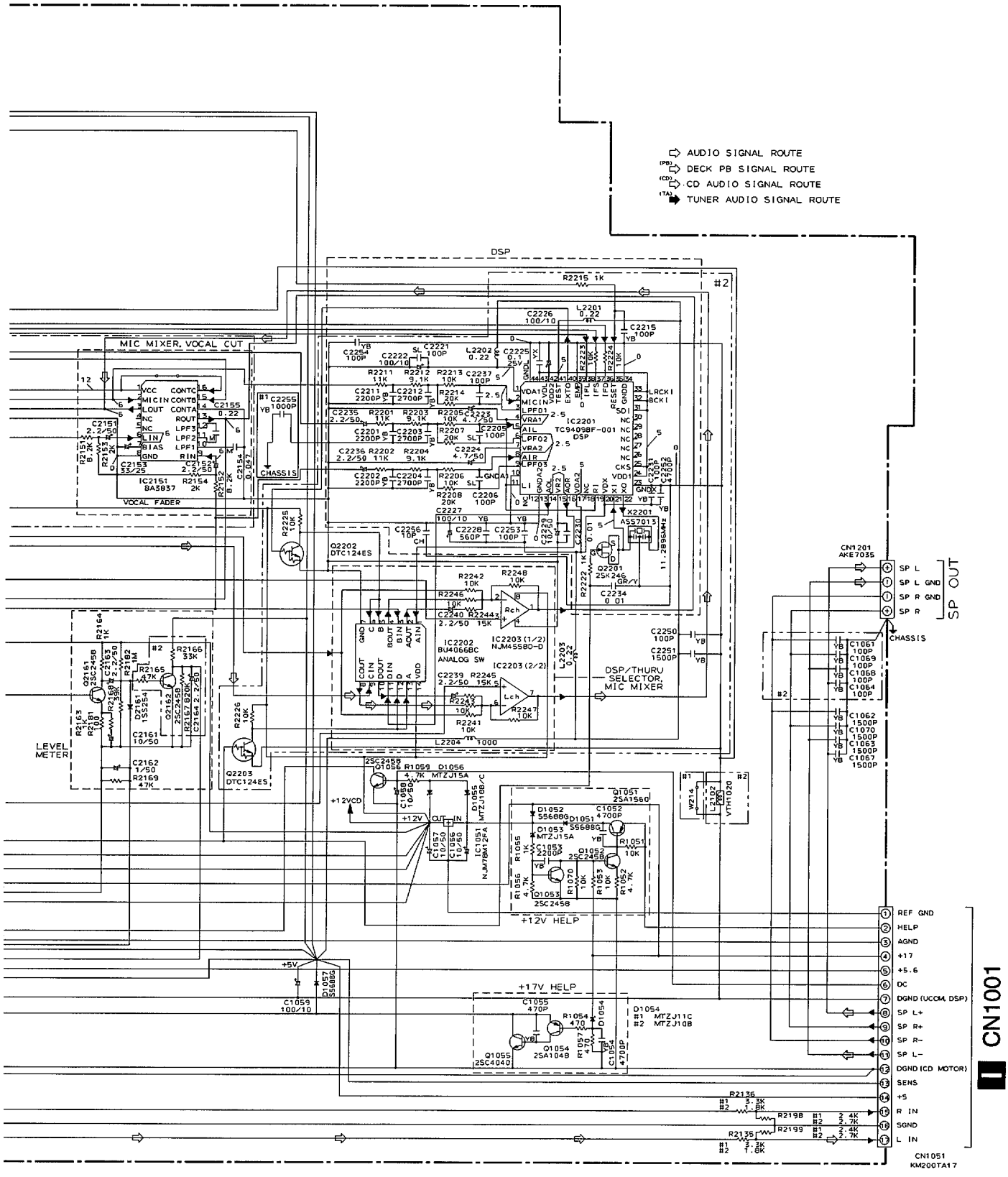
3.4 DECK ASSY AND SHIELD ASSY




M J4151
52147-1610
CN4151
ARR
AFR
HALF
MODE
K13
K14
PULSE 2
PULSE 1
VDD (+5V)
D.GND
BEAT CUT ON/OFF
ALC ON/OFF
STB
DATA
CLK
S.DATA THUR
(PB) DECK PB SIGNAL ROUTE
(REC) DECK REC SIGNAL ROUTE
EXP.IC
IC4101
BU4094BC
STB
DATA
CLK
R.MUTE
1/2
P/R
SOL1
GND
VCC
OE
P/R
BIAS
MTR
SOL2
THUR
DATA
PULSE 2
DTA124ES
Q4112
Q4111
PULSE 1
SOL 1
Q4104
2SA1560
SOL 2
Q4105
DTC143ES
Q4106
2SA1560
Q4101
DTC143ES
Q4102
2SA1560
Q4103
DTC143ES
MOTOR
TAPE SPEED
VR4101
RCP1140
10K
R4109
10K
C4102
33/25
R4114
3K
R4112
1.6K
R4110
1.6K
D4114
D4115
D4104
D4112
D4113
D4302
D4301
D4303
C4104
680P
C4103
2200P YB
R4115
1K
R4108
47K
R4107
47K
I MECHA
D20PWY0815E
J4101
+6V SINK
MODE 1
VCC
D.GND
PULSE 1
SOL 1
KO03
HALF 1
RSG1018
SPI33534FG
RSN1023
RXP1021
II MECHA
D20PWY1415E
J4102
MTR SP B
MTR SP A
+17V (MTR)
+6V SINK
MODE 2
VCC
D.GND
PULSE 2
SOL 2
KO04
HALF 2
NC
AFR
ARR
RXM1086
RSG1018
SPI33534FG
RSN1023×3
RXP1021
F DECK ASS' Y
AWZ8436

3.5 AF ASSY

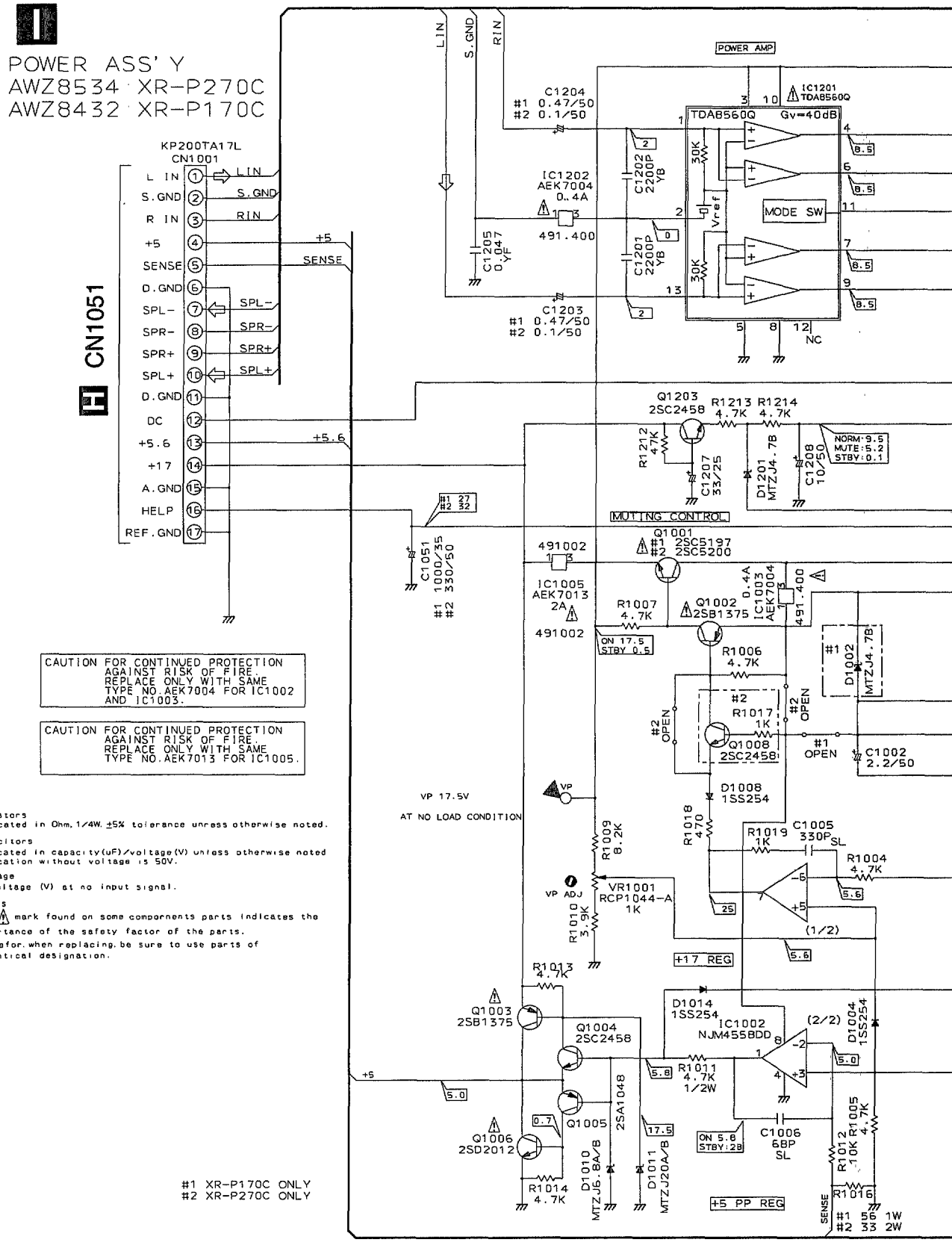

E CN8004
CN1052 HLEM20R-1
DGND (CD)
+5 (CD)
CD Rch
AGND
CD Lch
DGND (M)
+5 (M)
CD DRF
CD CS
CD RESET
CD CE
CLAMP
OPEN
INSIDE
DISC123
K11
CD DATA
CD SQOUT
CD CLK
CD WRQ
AUX IN
AUX L
AUX R
CHASSIS
CN1053 HLEM40S-1
M CN1902
B+12
BGND
+17
KARA R
PB R
AGND
PB L
KARA L
+12
+6SINK
MIC
V+5 LED
CD DRF
CD RESET
CD CE
DGND
+5 6
DSP/3837
DSP ST-BY
TX MUTE
E-VR CE
CLAMP
OPEN
INSIDE
DISC123
K11
S-DO
S-DI
S-CLK
CD DATA
CD SQOUT
CD CLK
DATA
CLK
PLL CE
ST/TUN/DC
LEVEL
MS
CD WRQ
VOLUME, SFC, FUNCTION SELECTOR
IC2101 LC75394NE ELECTRONIC VOL
AGND
Q2151 DTC124ES
CN1054 KM200IB14
(NC)
(NC)
PLL CE
S-DI
S-CLK
TX Rch
TX GND
TX Lch
S-DO
TX MUTE
TUNED
+12 (TX)
+5 (TX)
STEREO
B CN6201
NOTES
1. Resistors
Indicated in Ω. 1/4W. ±5% tolerance unless otherwise noted K:kΩ M MΩ.
2. Capacitors
Indicated in μF/voltage unless otherwise noted P pF. Indication without voltage is 50V except electronic capacitors.
*Electronic capacitors CEAS000M
*Ceramic capacitors CKCYFB00Z
YB CKCYB VX CGCYX SL CCCSL
*Film capacitors
M CQMA
3. Inductors LAU000

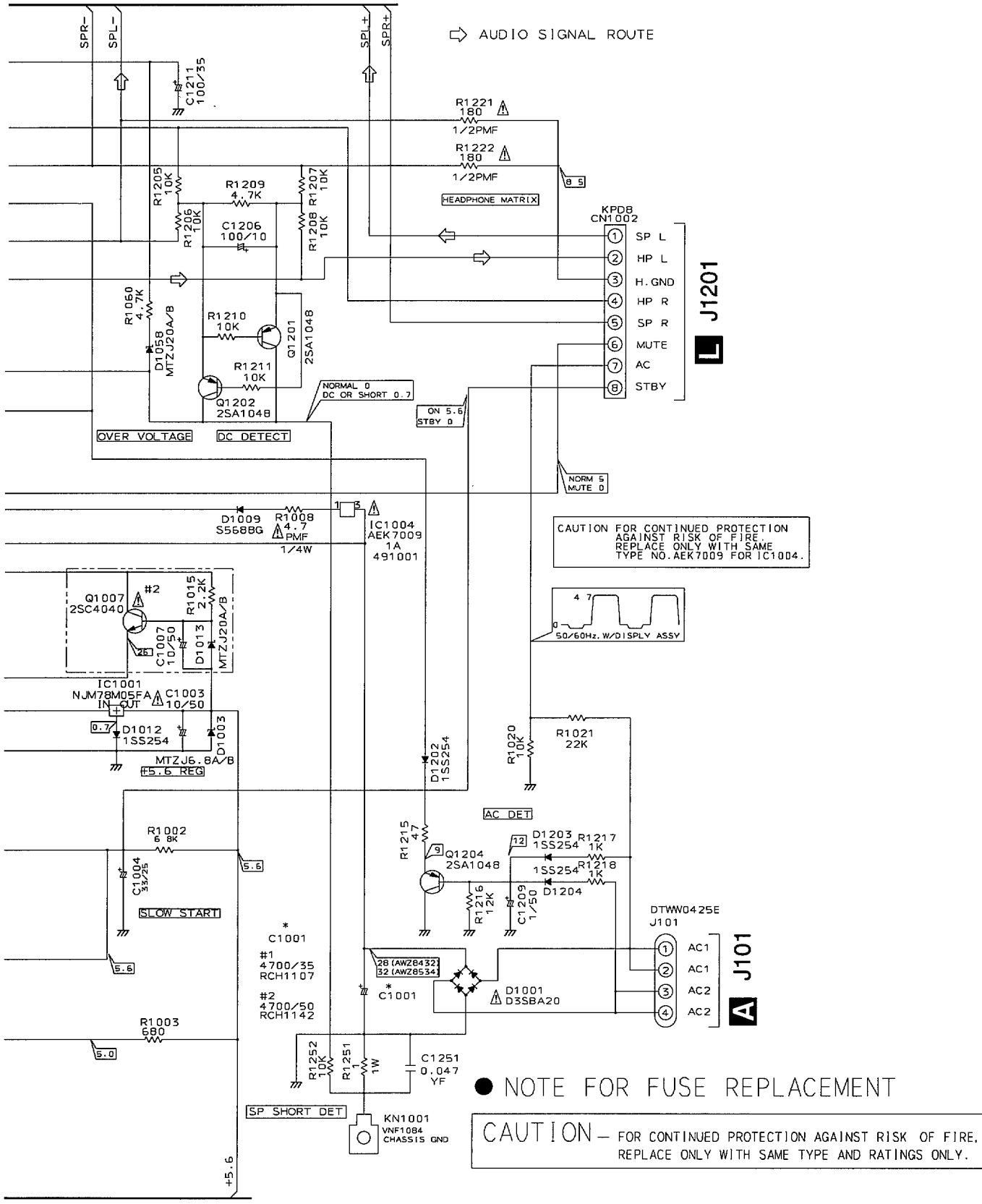


H AF ASS' Y
AWM7250 XR-P270C
AWM7238 : XR-P170C

#1 XR-P170C ONLY
#2 XR-P270C ONLY

3.6 POWER ASSY

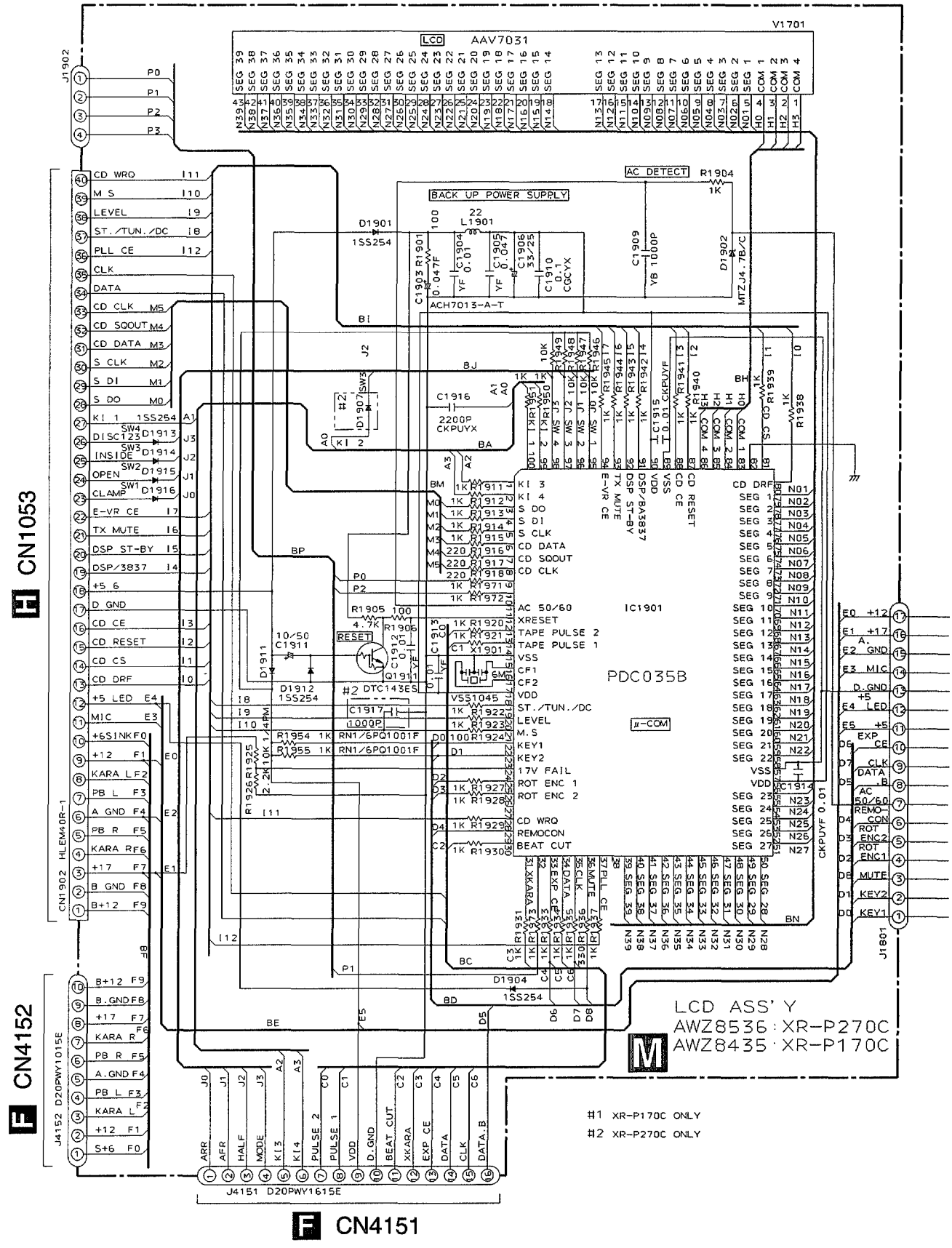


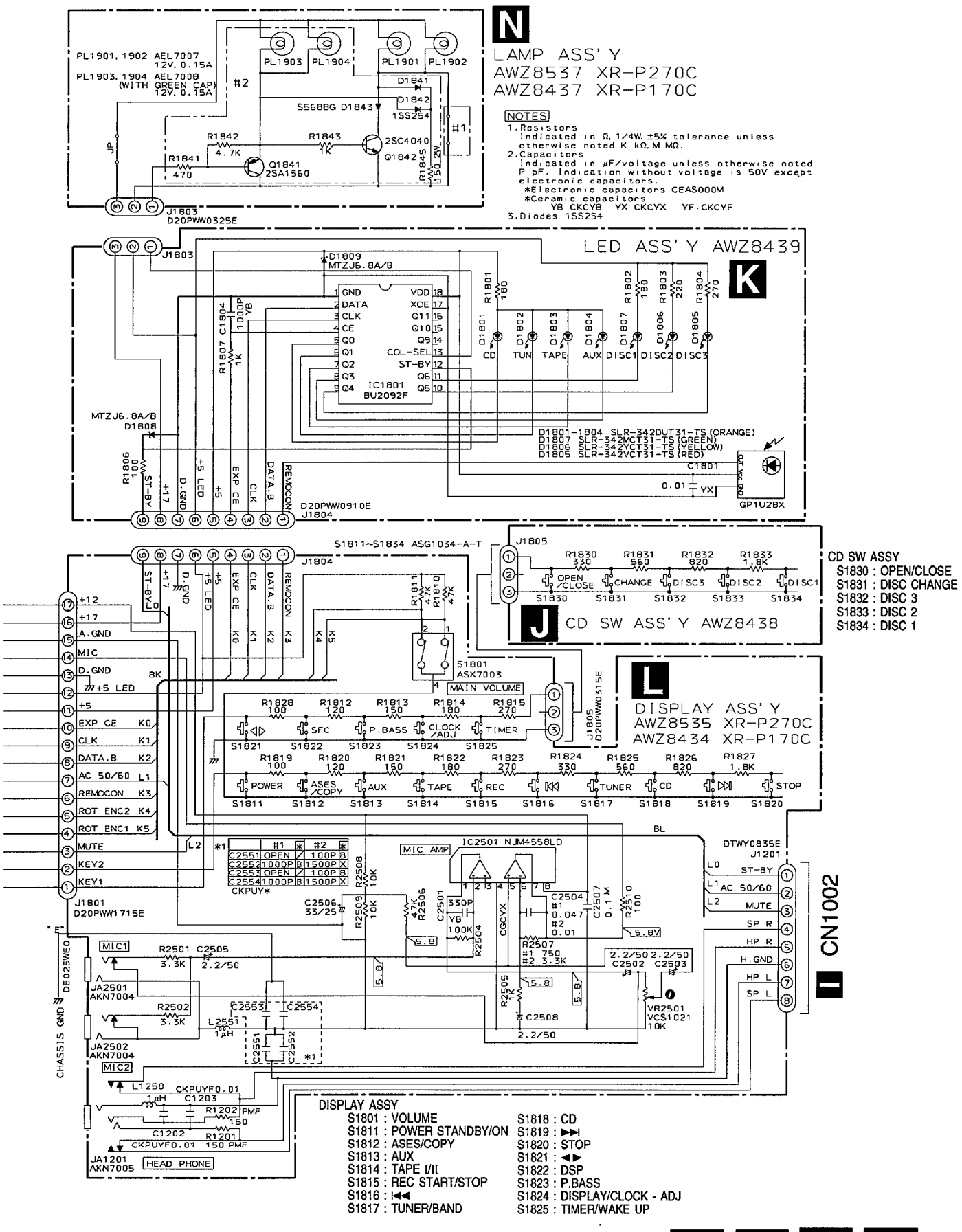


● NOTE FOR FUSE REPLACEMENT

CAUTION – FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

3.7 CD SW ASSY, LED ASSY, DISPLAY ASSY, LCD ASSY AND LAMP ASSY




N
LAMP ASS' Y
AWZ8537 XR-P270C
AWZ8437 XR-P170C
NOTES
1. Resistors
Indicated in Ω, 1/4W, ±5% tolerance unless otherwise noted K kΩ, M MΩ.
2. Capacitors
Indicated in μF/voltage unless otherwise noted P pF. Indication without voltage is 50V except electronic capacitors.
*Electronic capacitors CEAS000M
*Ceramic capacitors
YB CKCYB YX CKCYX YF CKCYF
3. Diodes 1SS254
PL1901, 1902 AEL7007 12V, 0.15A
PL1903, 1904 AEL7008 (WITH GREEN CAP) 12V, 0.15A
J1803
D20PWW0325E
LED ASS' Y AWZ8439
K
J1804
D20PWW0910E
D1801-1804 SLR-342DUT31-TS (ORANGE)
D1807 SLR-342WCT31-TS (GREEN)
D1806 SLR-342YCT31-TS (YELLOW)
D1805 SLR-342VCT31-TS (RED)
GP1U28X
S1811~S1834 ASG1034-A-T
J
CD SW ASS' Y AWZ8438
CD SW ASSY
S1830 : OPEN/CLOSE
S1831 : DISC CHANGE
S1832 : DISC 3
S1833 : DISC 2
S1834 : DISC 1
L
DISPLAY ASS' Y
AWZ8535 XR-P270C
AWZ8434 XR-P170C
J1801
D20PWW1715E
J1805
D20PWW0315E
MIC AMP
IC2501 NJM4558LD
DTWY0835E
J1201
I
CN1002
JA2501 AKN7004
JA2502 AKN7004
JA1201 AKN7005
HEAD PHONE
DISPLAY ASSY
S1801 : VOLUME
S1811 : POWER STANDBY/ON
S1812 : ASES/COPY
S1813 : AUX
S1814 : TAPE I/II
S1815 : REC START/STOP
S1816 : ⏮
S1817 : TUNER/BAND
S1818 : CD
S1819 : ⏭
S1820 : STOP
S1821 : ◀▶
S1822 : DSP
S1823 : P.BASS
S1824 : DISPLAY/CLOCK - ADJ
S1825 : TIMER/WAKE UP

4. PCB CONNECTION DIAGRAM

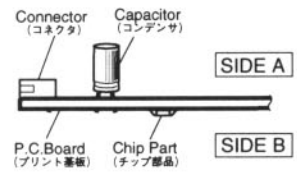
4.1 TRANS ASSY

NOTE FOR PCB DIAGRAMS

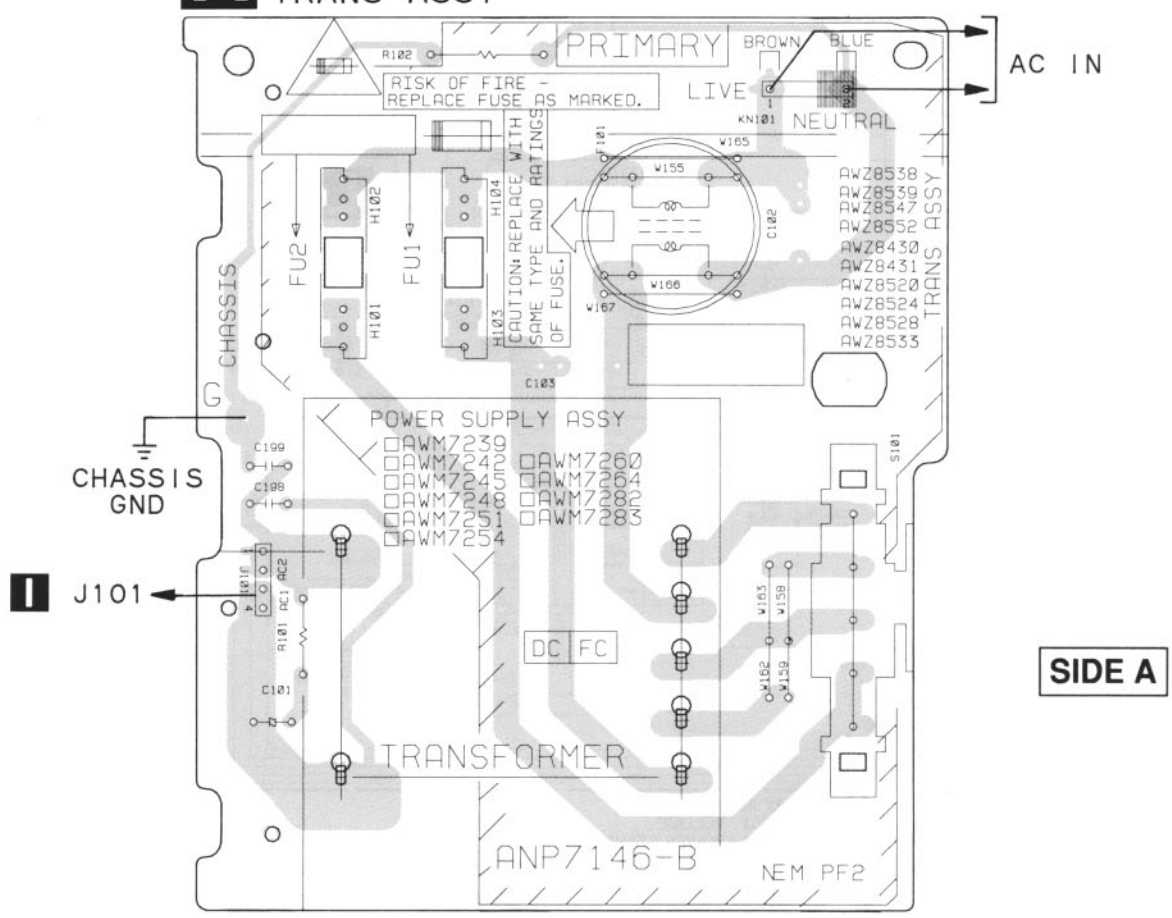
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respecitve destinations, be sure to check with the schematic diagram.
4. Viewpoint of PCB diagrams

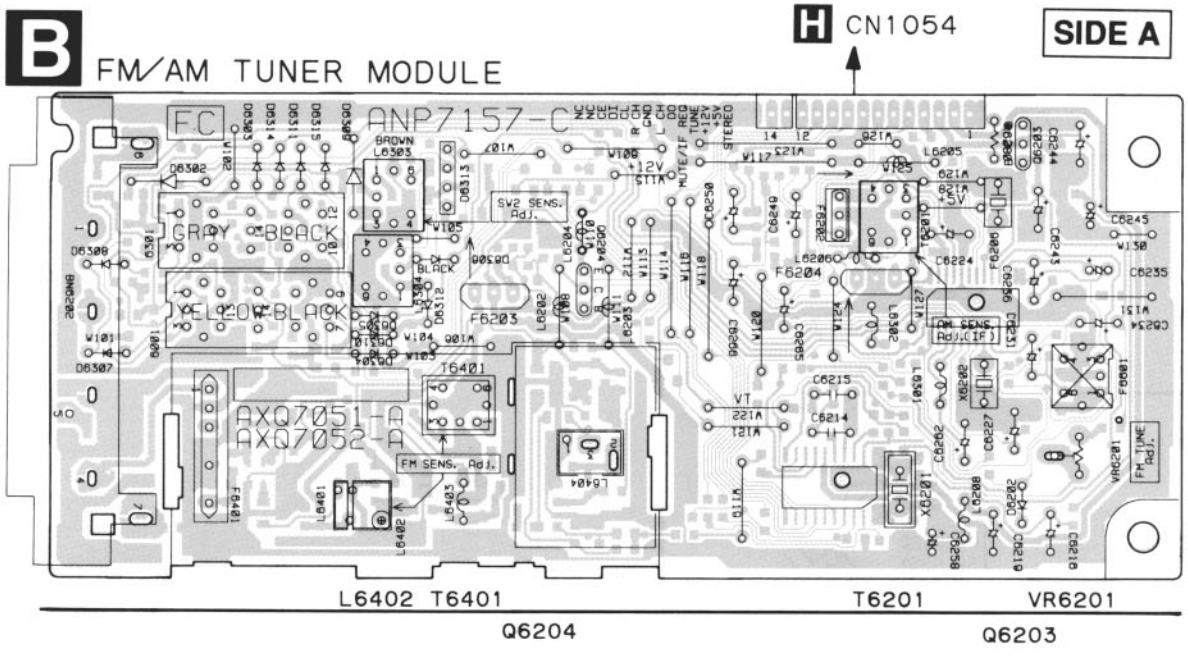


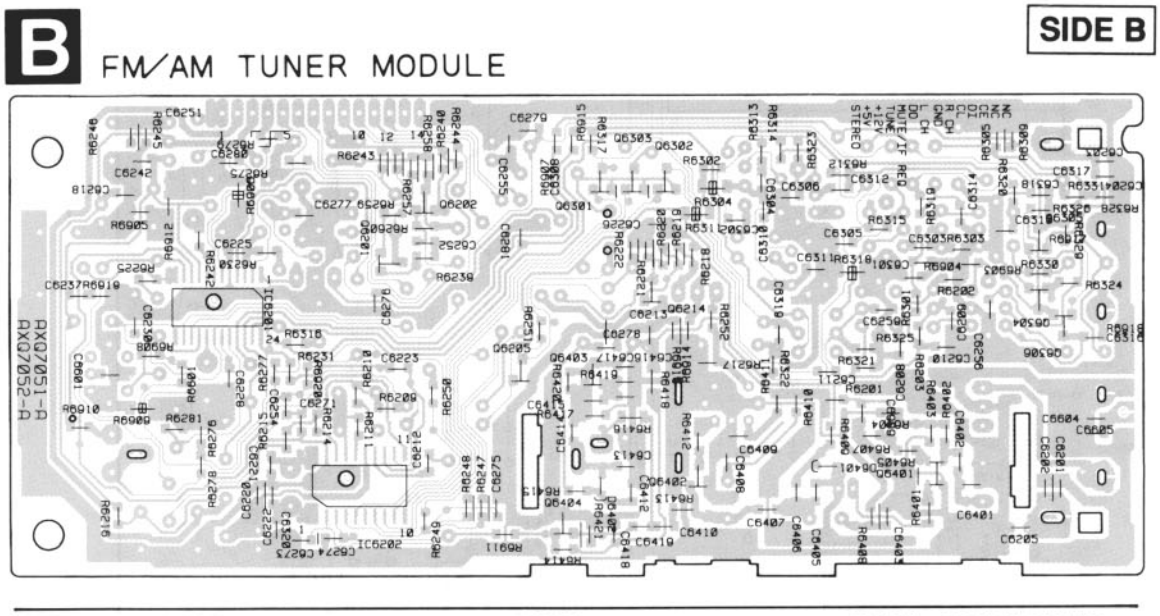
A TRANS ASSY



ANP7146-B

4.2 FM/AM TUNER MODULE

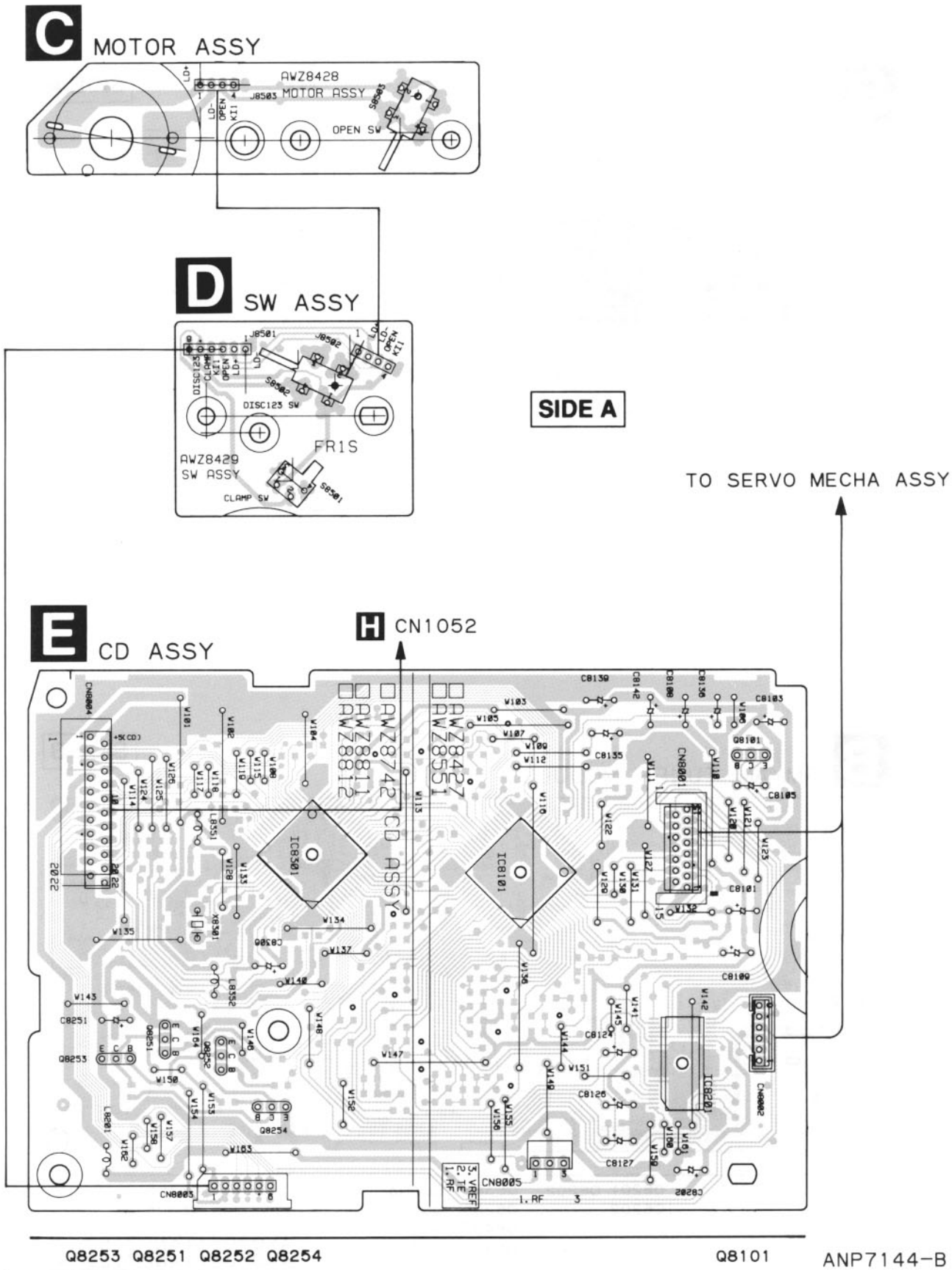




IC6201 Q6201 Q6202 IC6202 Q6301 Q6303 Q6205 Q6402 Q6403 Q6214 Q6404 Q6302 Q6401 Q6305 Q6306 Q6304

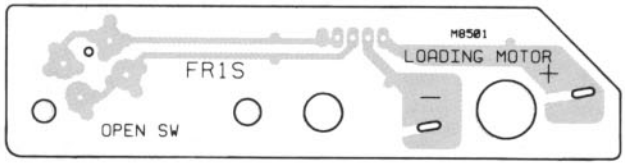
AXQ7051 : ANP7157-C
AXQ7061 : ANP7159-A

4.3 MOTOR ASSY, SW ASSY AND CD ASSY

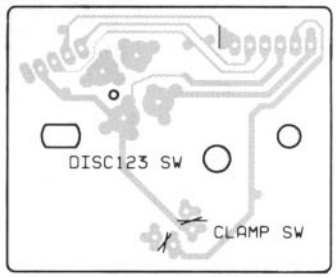


C D E

C MOTOR ASSY

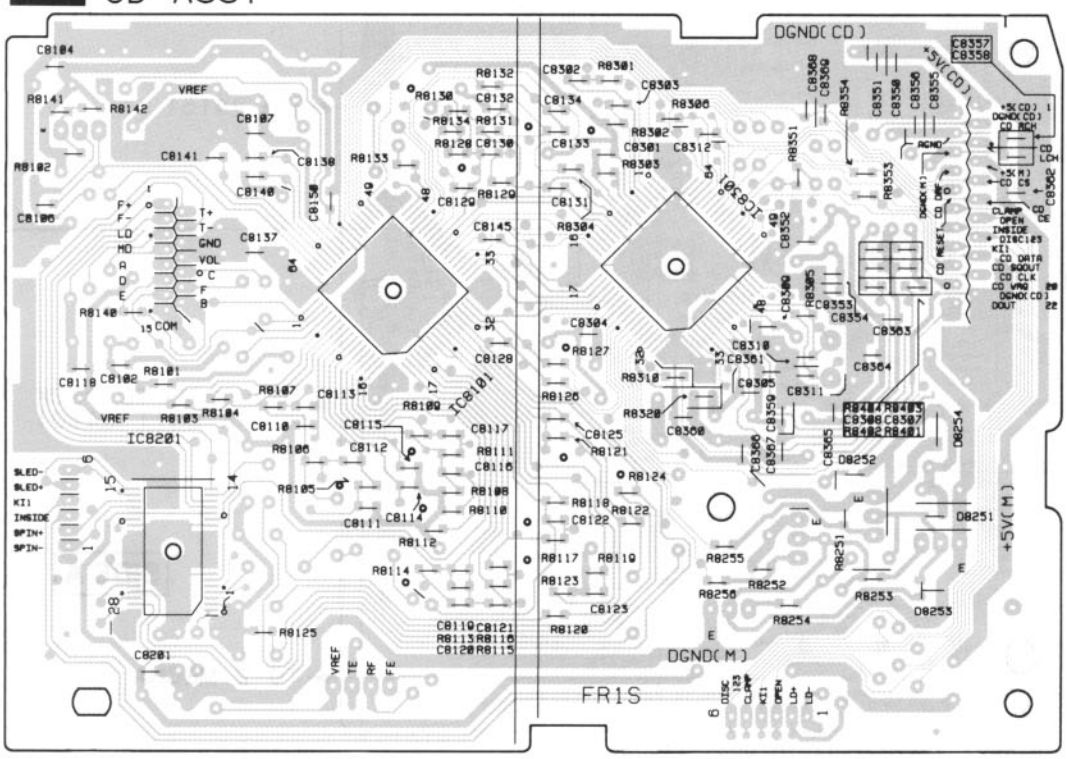


D SW ASSY



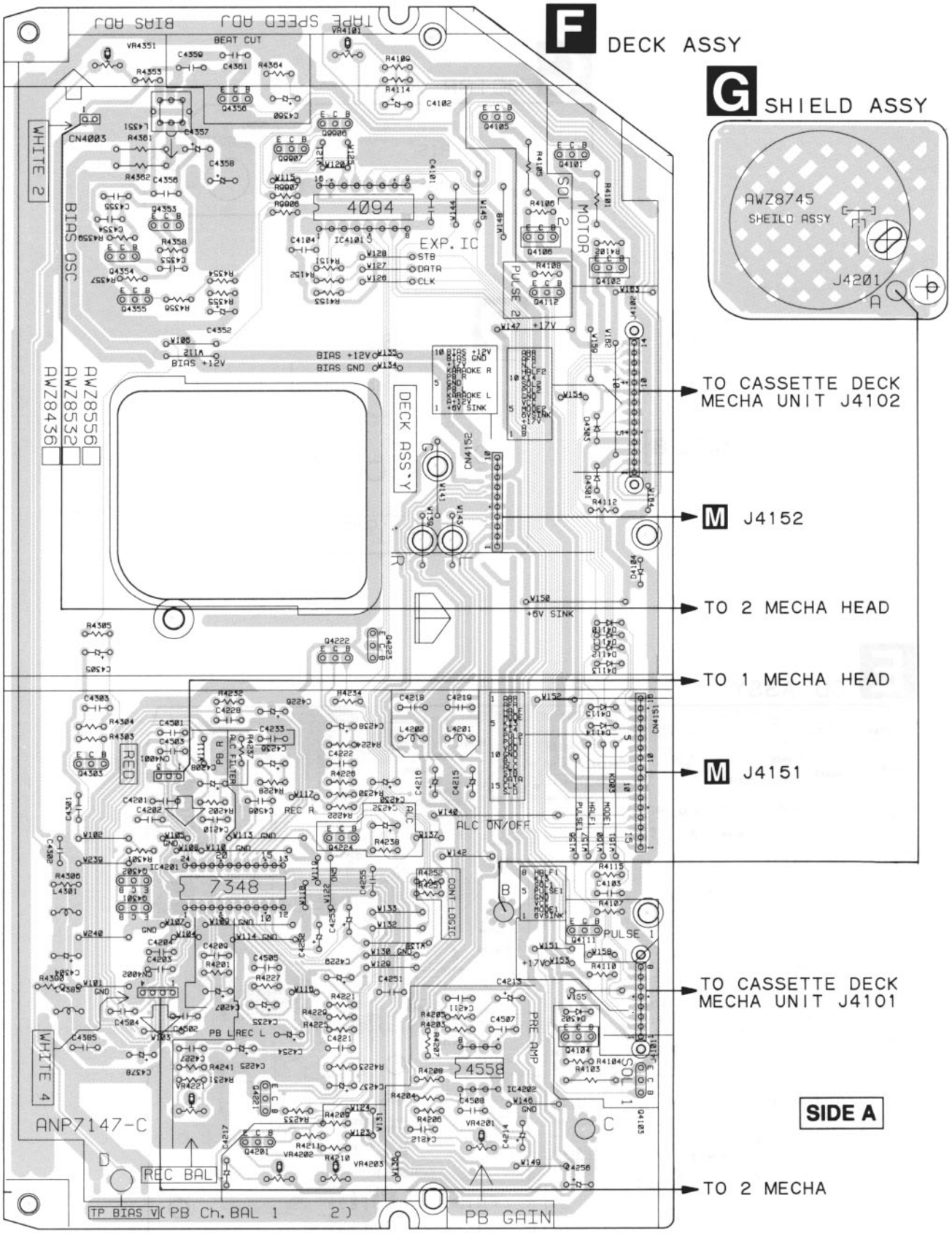
SIDE B

E CD ASSY



IC8201 IC8101 IC8301 ANP7144-B

4.4 DECK ASSY AND SHEILD ASSY



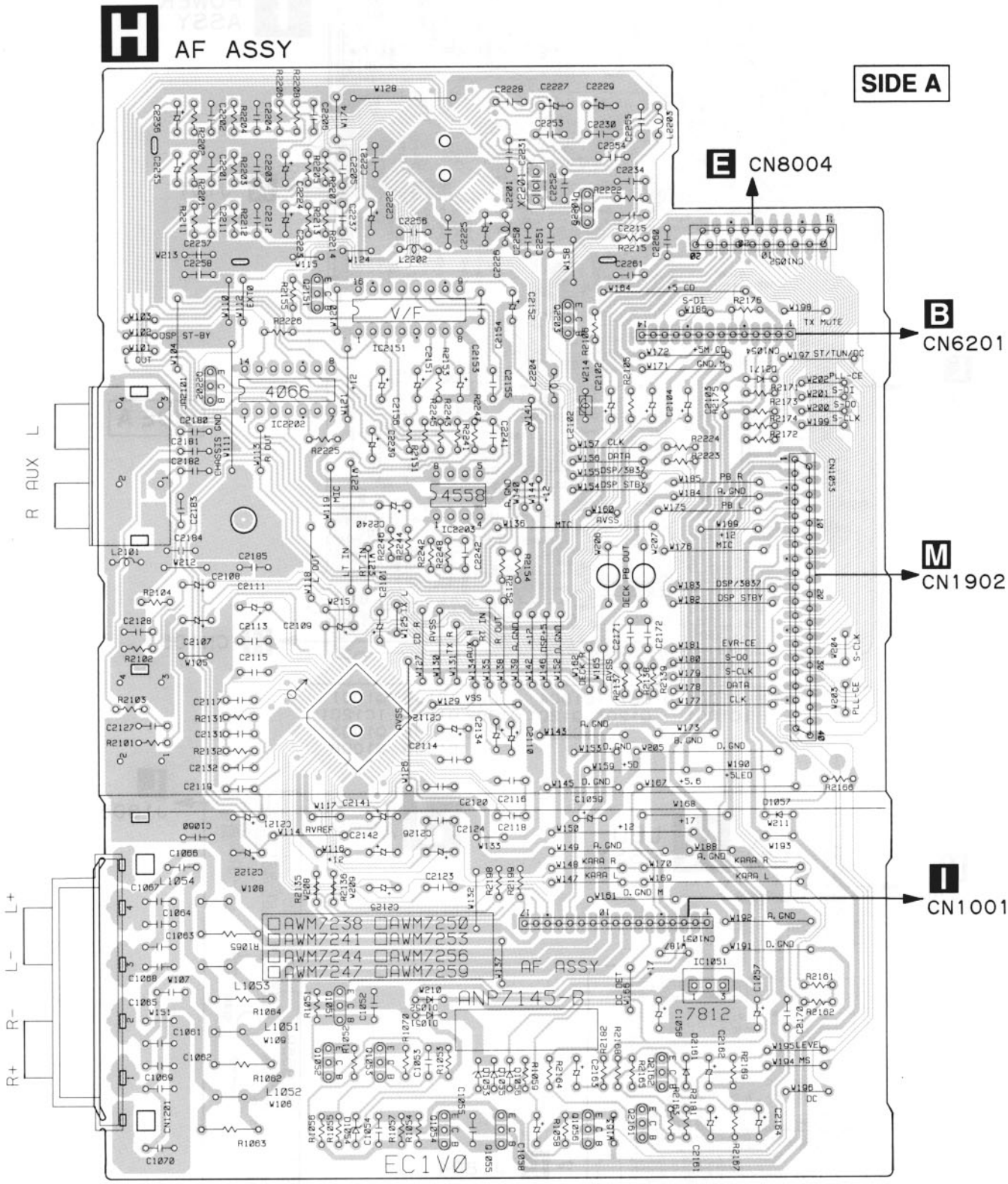
VR4351 VR4221 VR4202 VR4210 VR4101 VR4201

Q4303 Q4354 Q4353 Q4356 Q9006 IC4101 Q4105 Q4106 Q4101 Q4103
Q4355 IC4201 Q9907 Q4222 Q4223 IC4202 Q4112 Q4102
Q4302 Q4221 Q4224 Q4111
Q4301 Q4201 Q4104

ANP7147-C

F G

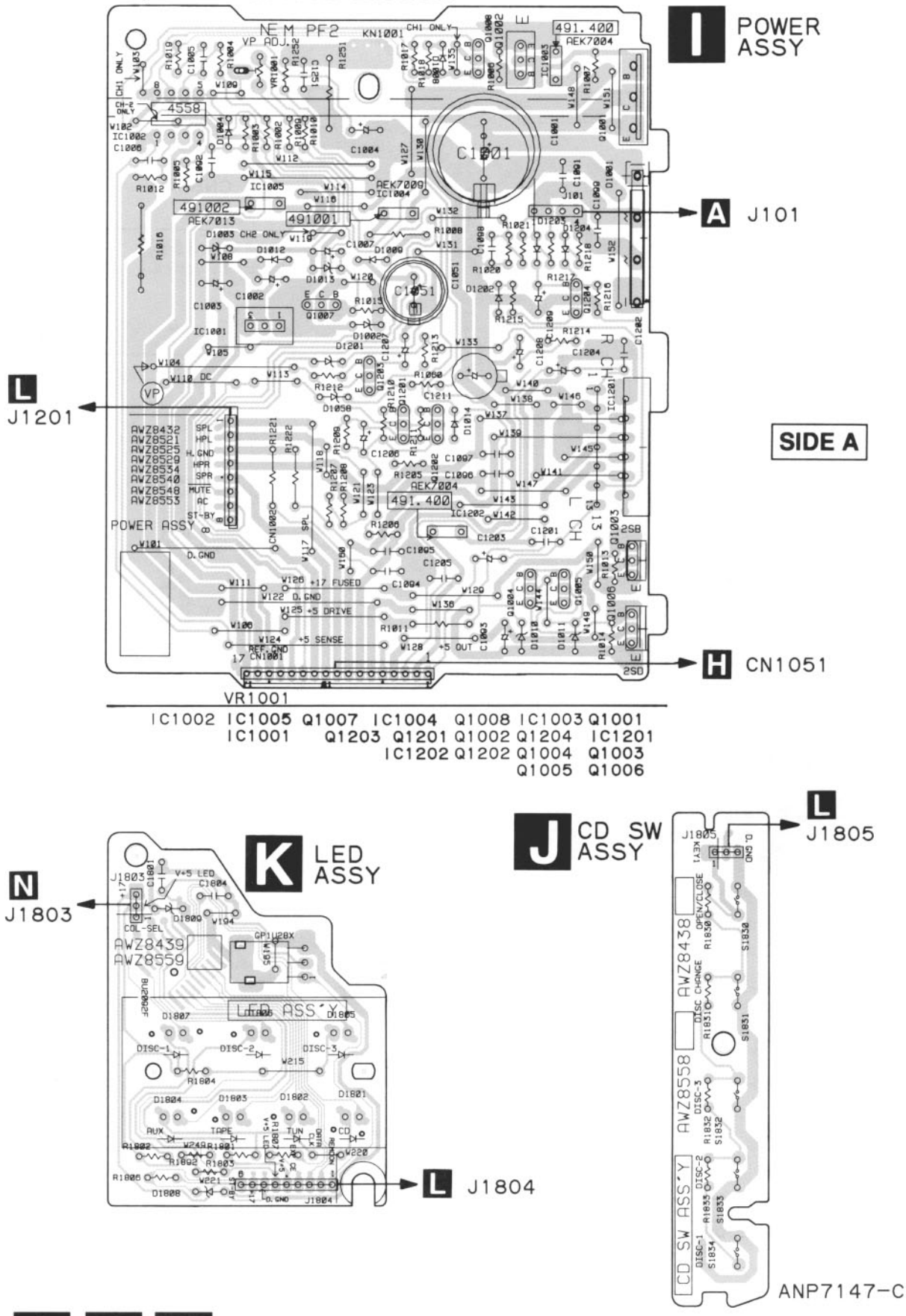
4.5 AF ASSY



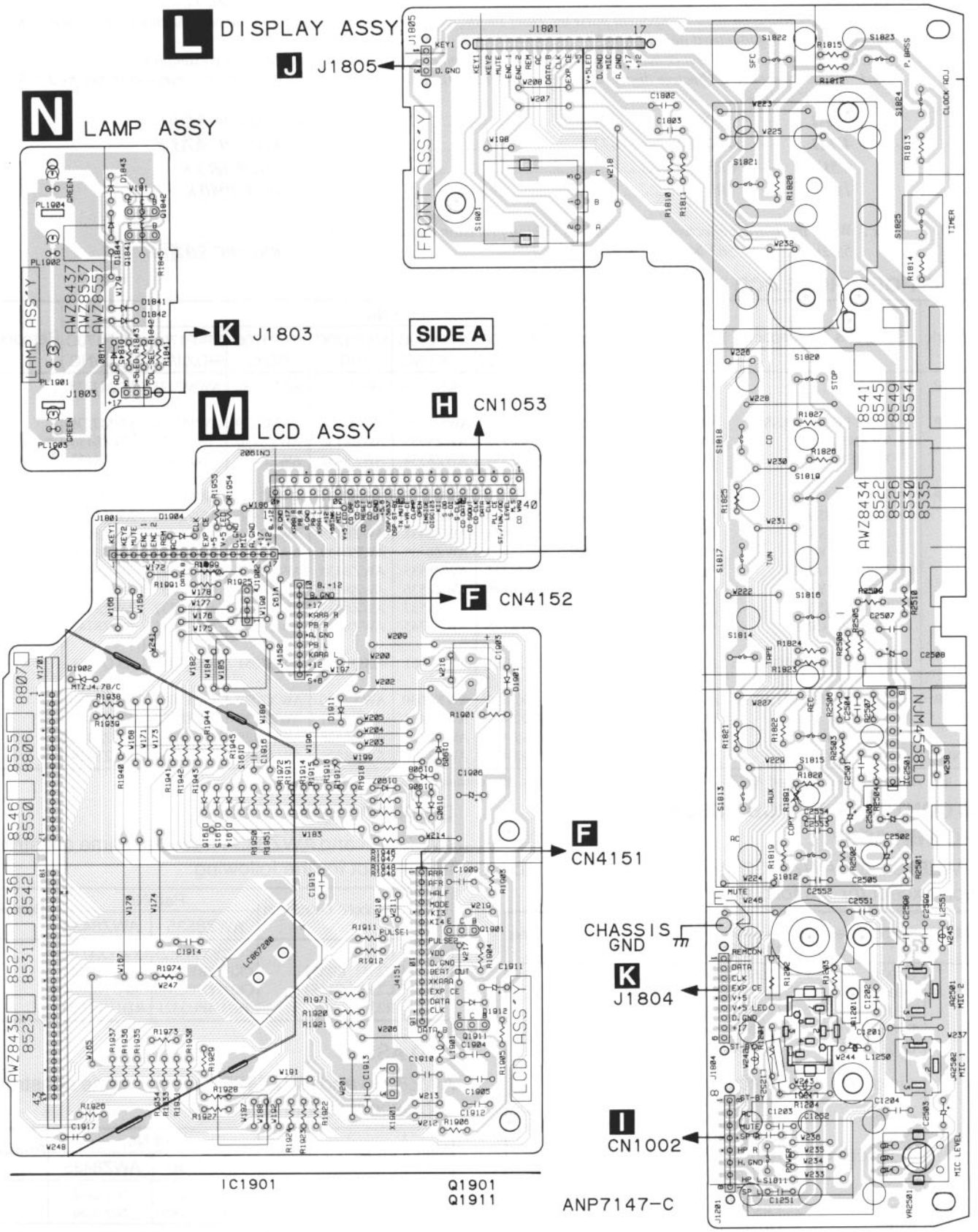
Q2202 Q2151 IC2151 IC2201 Q2201 Q2162 IC1051
IC2202 IC2101 IC2203 Q2203 Q2161
Q1051 Q1054 Q1056
Q1052 Q1053
Q1053

ANP7145-B

4.6 POWER ASSY, CD SW ASSY AND LED ASSY



4.7 DISPLAY ASSY, LCD ASSY AND LAMP ASSY



5. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	→	*56 × 10¹* →	*561*	*RD1/4PU[5][6][1]J*
47kΩ	→	*47 × 10³* →	*473*	*RD1/4PU[4][7][3]J*
0.5Ω	→	*0R5*		*RN2H[0][R][5]K*
1Ω	→	*1R0*		*RS1P[1][R][0]K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	→	*562 × 10¹* →	*5621*	*RN1/4PC[5][6][2][1]F*

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol & Description	Part No.								Remarks
		XR-P270C /RD	XR-P270C /RDXJ	XR-P270C /RDXJ/NC	XR-P270C RLXJ/NC	XR-P170C /RD	XR-P170C /RDXJ	XR-P170C /RDXJ/NC	XR-P170C RLXJ/NC	
NSP	AF ASSY	AWM7250	AWM7250	AWM7250	AWM7250	AWM7238	AWM7238	AWM7238	AWM7238	
NSP	POWER SUPPLY ASSY	AWM7251	AWM7251	AWM7251	AWM7251	AWM7239	AWM7239	AWM7239	AWM7239	
	├TRANS ASSY	AWZ8533	AWZ8533	AWZ8533	AWZ8533	AWZ8430	AWZ8430	AWZ8430	AWZ8430	*1
	└POWER ASSY	AWZ8534	AWZ8534	AWZ8534	AWZ8534	AWZ8432	AWZ8432	AWZ8432	AWZ8432	
NSP	COMPLEX ASSY	AWM7252	AWM7252	AWM7252	AWM7252	AWM7240	AWM7240	AWM7240	AWM7240	
	├DECK ASSY	AWZ8436	AWZ8436	AWZ8436	AWZ8436	AWZ8436	AWZ8436	AWZ8436	AWZ8436	
	├CD SW ASSY	AWZ8438	AWZ8438	AWZ8438	AWZ8438	AWZ8438	AWZ8438	AWZ8438	AWZ8438	
	├LED ASSY	AWZ8439	AWZ8439	AWZ8439	AWZ8439	AWZ8439	AWZ8439	AWZ8439	AWZ8439	
	├DISPLAY ASSY	AWZ8535	AWZ8535	AWZ8535	AWZ8535	AWZ8434	AWZ8434	AWZ8434	AWZ8434	
	├LCD ASSY	AWZ8536	AWZ8536	AWZ8536	AWZ8536	AWZ8435	AWZ8435	AWZ8435	AWZ8435	
	├LAMP ASSY	AWZ8537	AWZ8537	AWZ8537	AWZ8537	AWZ8437	AWZ8437	AWZ8437	AWZ8437	
NSP	└SHIELD ASSY	AWZ8745	AWZ8745	AWZ8745	AWZ8745	AWZ8745	AWZ8745	AWZ8745	AWZ8745	
	FM/AM TUNER MODULE	AXQ7051	AXQ7061	AXQ7061	AXQ7061	AXQ7051	AXQ7061	AXQ7061	AXQ7061	
NSP	SM SERVO BOARD ASSY	AWX7030	AWX7030	AWX7030	AWX7030	AWX7030	AWX7030	AWX7030	AWX7030	
	├CD ASSY	AWZ8427	AWZ8427	AWZ8427	AWZ8427	AWZ8427	AWZ8427	AWZ8427	AWZ8427	
	├MOTOR ASSY	AWZ8428	AWZ8428	AWZ8428	AWZ8428	AWZ8428	AWZ8428	AWZ8428	AWZ8428	
NSP	└SW ASSY	AWZ8429	AWZ8429	AWZ8429	AWZ8429	AWZ8429	AWZ8429	AWZ8429	AWZ8429	

*1 : Although AWZ8533 and AWZ8430 are different in part number, they consist of the same components.

■ CONTRAST OF PCB ASSEMBLIES

POWER ASSY

AWZ8534 and AWZ8432 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ8534	AWZ8432	
	Q1001	2SC5200(P)	2SC5197(P)	
	Q1007	2SC4040	Not used	
	Q1008	2SC2458	Not used	
	D1002	Not used	MTZJ4.7B	
	D1013	MTZJ20A	Not used	
	C1001	RCH1142 (4700µF/50V)	RCH1107 (4700µF/35V)	
	C1007	CEAS100M50	Not used	
	C1051	CEAS331M50	CEAS102M35	
	C1203, C1204	CEASR10M50	CEASR47M50	
	R1015	RD1/4PU222J	Not used	
	R1016	RS2LMF330J	RS1LMF560J	
	R1017	RD1/4PU102J	Not used	

DISPLAY ASSY

AWZ8535 and AWZ8434 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ8535	AWZ8434	
	C2504	CGCYX103K25	CGCYX473K25	
	C2551, C2553	CKPUYB101K50	Not used	
	C2552, C2554	CKPUYX152N16	CKPUYB102K50	
	R2507	RD1/4PU332J	RD1/4PU751J	

LCD ASSY

AWZ8536 and AWZ8435 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ8536	AWZ8435	
	D1907	1SS254	Not used	
	C1917	CKPUYB102K50	Not used	

LAMP ASSY

AWZ8537 and AWZ8437 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ8537	AWZ8437	
	Q1841	2SA1560	Not used	
	Q1842	2SC4040	Not used	
	D1841, D1842	1SS254	Not used	
	D1843	S5688G	Not used	
	R1841	RD1/4PU471J	Not used	
	R1842	RD1/4PU472J	Not used	
	R1843	RD1/4PU102J	Not used	
	R1845	RS2LMF151J	Not used	
	PL1903, PL1904	AEL7008	Not used	

FM/AM TUNER MODULE

AXQ7051 and AXQ7061 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AXQ7051	AXQ7061	
	BN6202 Terminal 4-P	AKE7028	AKE7025	

Mark	No.	Description	Parts No.

H AF ASSY (AWM7238 : FOR XR-P170C SERIES)

SEMICONDUCTORS

	IC2151	BA3837
	IC2101	LC75394NHE
	IC1051	NJM78M12FA
	Q1054	2SA1048
	Q1051	2SA1560
	Q1052, Q1053, Q1056, Q2161	2SC2458
	Q1055	2SC4040
	Q2151	DTC124ES
	D2161, D2171	1SS254
	D1054	MTZJ11C
	D1053, D1056	MTZJ15A
	D1055	MTZJ18B
	D1051, D1052, D1057	S5688G

COILS AND FILTERS

	L2101	LAU010J

CAPACITORS

	C2162	CEAS010M50
	C1056 – C1058, C2142, C2161	CEAS100M50
	C1059	CEAS101M10
	C2101 – C2104, C2107 – C2110	CEAS2R2M50
	C2151, C2152, C2156, C2163	CEAS2R2M50
	C2121, C2122, C2141, C2153	CEAS330M25
	C2111, C2112	CEASR33M50
	C2125, C2126	CEASR47M50
	C2123, C2124	CKCYB101K50
	C2255	CKCYB102K50
	C1062, C1063, C1067, C1070, C2132	CKCYB152K50
	C2171, C2172, C2184, C2260	CKCYB152K50
	C1053	CKCYB222K50
	C1055	CKCYB471K50
	C1052, C1054, C2119, C2120	CKCYB472K50
	C2131	CKCYB682K50
	C2155	CQMA224J50
	C2154	CQMA473J50
	C2113, C2114	CQMA823J50

RESISTORS

	All Resistors	RD1/4PU□□□J

OTHERS

	CN1201	SPEAKER TERMINAL 4 – P AKE7035
	CN1052	CONNECTOR HLEM20R – 1
	CN1053	CONNECTOR HLEM40S – 1
	CN1054	14P PLUG KM200IB14
	CN1051	17P PLUG KM200TA17
	JA2101	JACK VKB1050

■ PCB PARTS LIST FOR XR-P270C SERIES

H AF ASSY

SEMICONDUCTORS

	IC2202	BU4066BC
	IC2101	LC75394NHE
	IC2203	NJM4558D – D
	IC1051	NJM78M12FA
	IC2201	TC9409BF – 001
	Q1054	2SA1048
	Q1051	2SA1560
	Q1052, Q1053, Q1056, Q2161, Q2162	2SC2458
	Q1055	2SC4040
	Q2201	2SK246
	Q2202, Q2203	DTC124ES
	D2161, D2171	1SS254
	D1054	MTZJ10B
	D1053, D1056	MTZJ15A
	D1055	MTZJ18B
	D1051, D1052, D1057	S5688G

COILS AND FILTERS

	L2101	LAU010K
	L2201 – L2203	LAUR22J
	L2204	LTA102J
	L2102	VTH1020

CAPACITORS

	C2256	CCCCH100D50
	C2205, C2206, C2221, C2237	CCCSL101J50
	C2162	CEAS010M50
	C1056 – C1058, C2142, C2161, C2229	CEAS100M50
	C1059, C2222, C2226, C2227	CEAS101M10
	C2101 – C2104, C2107 – C2110	CEAS2R2M50
	C2125, C2126, C2156, C2163, C2164	CEAS2R2M50
	C2235, C2236, C2239, C2240	CEAS2R2M50
	C2121, C2122, C2141	CEAS330M25
	C2223, C2224	CEAS4R7M50

Mark	No.	Description	Parts No.
	C2111, C2112		CEASR33M50
	C2225		CGCYX104K25
	C1061, C1064, C1068, C1069		CKCYB101K50
	C2123, C2124, C2180, C2182, C2184		CKCYB101K50
	C2215, C2231, C2250, C2253, C2254		CKCYB101K50
	C1062, C1063, C1067, C1070, C2132		CKCYB152K50
	C2171, C2172, C2181, C2183, C2185		CKCYB152K50
	C2251, C2260		CKCYB152K50
	C1053, C2201, C2202, C2211		CKCYB222K50
	C2203, C2204, C2212		CKCYB272K50
	C1055		CKCYB471K50
	C1052, C1054, C2252, C2119, C2120		CKCYB472K50
	C2228		CKCYB561K50
	C2131		CKCYB682K50
	C2230, C2234		CKCYF103Z50
	C2113, C2114		CQMA823J50
RESISTORS			
		All Resistors	RD1/4PU□□□J
OTHERS			
	CN1201	SPEAKER TERMINAL 4 – P	AKE7035
	X2201	CERAMIC RESONATOR(11MHz)	ASS7013
	CN1052	CONNECTOR	HLEM20R – 1
	CN1053	CONNECTOR	HLEM40S – 1
	CN1054	14P PLUG	KM200IB14
	CN1051	17P PLUG	KM200TA17
	JA2101	JACK	VKB1050

A TRANS ASSY

CAPACITORS			
	C101		CEANP010M50
RESISTORS			
	R101		RF1/4PS100J
OTHERS			
	H101 – H104	FUSE CLIP	AKR1004
	S101	VOLTAGE SELECTOR	AKX7004
		TERMINAL	RKC – 061

B POWER ASSY

SEMICONDUCTORS			
	IC1002		NJM4558D – D
	IC1001		NJM78M05FA
	IC1201		TDA8560Q
	IC1003, IC1202	PROTECTOR(400mA/125V)	AEK7004
	IC1004	PROTECTOR(1A/125V)	AEK7009
	IC1005	PROTECTOR(2A/125V)	AEK7013
	Q1005, Q1201, Q1202, Q1204		2SA1048
	Q1002, Q1003		2SB1375
	Q1004, Q1008, Q1203		2SC2458
	Q1007		2SC4040
	Q1001		2SC5200(P)
	Q1006		2SD2012
	D1004, D1008, D1012, D1014		1SS254
	D1202 – D1204		1SS254
	D1001		D3SBA20
	D1011, D1013, D1058		MTZJ20A
	D1201		MTZJ4.7B
	D1003, D1010		MTZJ6.8A
	D1009		S5688G
CAPACITORS			
	C1005		CCCSL331J50
	C1006		CCCSL680J50
	C1209		CEAS010M50
	C1003, C1007, C1208		CEAS100M50
	C1206		CEAS101M10
	C1211		CEAS101M35
	C1002		CEAS2R2M50
	C1004, C1207		CEAS330M25
	C1051		CEAS331M50
	C1203, C1204		CEASR10M50
	C1201, C1202		CKCYB222K50
	C1205, C1251		CKCYF473Z50
	C1001	(4700pF/50V)	RCH1142
RESISTORS			
	R1011		RD1/2PM472J
	R1221, R1222		RD1/2PMF181J
	R1008		RD1/4PMF4R7J
	R1251		RS1LMF010J
	R1016		RS2LMF330J
	VR1001	(1.0kΩ, 0.1W)	RCP1044
		Other Resistors	RD1/4PU□□□J
OTHERS			
	CN1001	17P SOCKET	KP200TA17L
	KN1001	EARTH METAL FITTING	VNF1084

F DECK ASSY

SEMICONDUCTORS			
	IC4201		AN7348K
	IC4101		BU4094BC
	IC4202		NJM4558D – D
	Q4303		2SA1048
	Q4102, Q4104, Q4106		2SA1560
	Q4301, Q4302		2SC1845
	Q4356		2SC2240
	Q4353, Q4354		2SC4040
	Q4221, Q4222, Q4355		2SD2144S
	Q4111, Q4112		DTA124ES
	Q4223		DTA143ES
	Q4101, Q4103, Q4105, Q4224		DTC143ES
	D4104, D4110 – D4115, D4301 – D4303		1SS254
COILS AND FILTERS			
	L4351	(4.05mH/105KHz)	ATX7002
	L4301	(1mH/252kHz)	RTF1013
CAPACITORS			
	C4211, C4212		CCCSL151J50
	C4215, C4216, C4237, C4238, C4254		CEAS010M50
	C4360		CEAS100M50
	C4207, C4208, C4305		CEAS101M10
	C4213, C4214, C4225, C4226		CEAS2R2M50

Mark	No.	Description	Parts No.
	C4229, C4230, C4235, C4236, C4253		CEAS2R2M50
	C4102, C4252, C4352, C4357, C4358		CEAS330M25
	C4232, C4304		CEAS4R7M50
	C4218, C4219		CGCYX333K25
	C4201, C4202		CKCYB102K50
	C4227, C4228		CKCYB152K50
	C4103		CKCYB222K50
	C4302		CQPA222J100
	C4353, C4354		CKCYB332K50
	C4203, C4204		CKCYB471K50
	C4355		CKCYB472K50
	C4104		CKCYB681K50
	C4361		CKCYB681K500
	C4301		CKCYB821K50
	C4303		CKCYF223Z50
	C4251		CQMA104J50
	C4356		CQMA223J50
	C4221, C4222		CQMA333K50
	C4209, C4210, C4233		CQMA393K50
	C4359		CQPA822J100
RESISTORS			
	R4101, R4103, R4105		RD1/2PM102J
	R4361, R4362		RD1/2PM820J
	VR4351	(22kΩ, 0.1W)	RCP1103
	VR4101	(10kΩ, 0.1W)	RCP1140
		Other Resistors	RD1/4PU□□□J
OTHERS			
	CN4152	10PJUMPER CONNECTOR	52147 – 1010
	CN4003	CONNECTOR POST	B2B – PH – K – S
	CN4001	CONNECTOR POST	B3B – PH – K – R
	CN4002	CONNECTOR POST	B4B – PH – K – S

J CD SW ASSY

Mark	No.	Description	Parts No.
SWITCHES AND RELAYS			
	S1830 – S1834		ASG1051
RESISTORS			
		All Resistors	RD1/4PU□□□J

K LED ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1801		BU2092F
	D1808, D1809		MTZJ6.8A
	D1801 – D1804		SLR – 342DUT31
	D1807		SLR – 342MCT31
	D1805		SLR – 342VCT31
	D1806		SLR – 342YCT31
CAPACITORS			
	C1804		CKCYB102K50
	C1801		CKCYF103Z50
RESISTORS			
		All Resistors	RD1/4PU□□□J
OTHERS			
		REMOTE RECEIVER UNIT	GP1U28X

L DISPLAY ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC2501		NJM4558LD
COILS AND FILTERS			
	L1250, L2551		LAU010K
SWITCHES AND RELAYS			
	S1811 – S1825		ASG1051
	S1801		ASX7003
CAPACITORS			
	C2502, C2505, C2508		CEAS2R2M50
	C2506		CEAS330M25
	C2503		CEJA2R2M50
	C2504		CGCYX103K25
	C2501		CKCYB331K50
	C2551, C2553		CKPUYB101K50
	C1202, C1203		CKPUYF103Z25
	C2552, C2554		CKPUYX152N16
	C2507		CQMA104J50
RESISTORS			
	R1201, R1202		RD1/2PMF151J
	VR2501	(10kΩ – B)	VCS1021
		Other Resistors	RD1/4PU□□□J
OTHERS			
	JA2501, JA2502	JACK	AKN7004
	JA1201	MINITURE JACK	AKN7005
	J1805	3P JUMPER WIRE	D20PWW0315E

M LCD ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1901		PDC035B
	Q1911		DTC143ES
	D1901, D1904, D1907, D1911 – D1916		1SS254
	D1902		MTZJ4.7B
COILS AND FILTERS			
	L1901		LAU220J
CAPACITORS			
	C1903		ACH7013
	C1911		CEAS100M50
	C1906		CEAS330M25
	C1910		CGCYX104K25
	C1909		CKCYB102K50
	C1904, C1912, C1913		CKCYF103Z50
	C1905		CKCYF473Z50
	C1917		CKPUYB102K50
	C1914, C1915		CKPUYF103Z25
	C1916		CKPUYX222M16
RESISTORS			
	R1925		RD1/4PM103J
	R1954, R1955		RN1/6PQ1001F
		Other Resistors	RD1/4PU□□□J

Mark	No.	Description	Parts No.
OTHERS			
		LT FILTER	AAK7282
		PVC SHEET(PLS)	AAK7367
	V1701	LCD	AAV7031
	CN1902	CONNECTOR	HLEM40R – 1
	X1901	CERAMIC RESONATOR(6.00MHz)	VSS1045

N LAMP ASSY

SEMICONDUCTORS		
	Q1841	2SA1560
	Q1842	2SC4040
	D1841, D1842	1SS254
	D1843	S5688G
RESISTORS		
	R1845	RS2LMF151J
	Other Resistors	RD1/4PU□□□J
OTHERS		
	PL1901, PL1902	SUB MINIATURE LAMP(0.15A/12V) AEL7007
	PL1903, PL1904	SUB MINIATURE LAMP(0.15A/12V) AEL7008

G SHEILD ASSY

SHEILD assembly has no service part.

B FM/AM TUNER MODULE

SEMICONDUCTORS		
	IC6201	LA1832ML
	IC6202	LC72131MD
	Q6402	2SC2223
	Q6203	2SC2705
	Q6201, Q6202	2SC2712
	Q6214, Q6403	2SC2714
	Q6404	2SK302
	Q6401	3SK194
	Q6204	DTA124ES
	Q6205	DTC124EK
	D6202	1SS254
	D6401, D6402	1T363
COILS AND FILTERS		
	L6404	ATC1003
	L6401	ATC1020
	L6402	ATC1021
	F6204	ATF – 107
	F6203	ATF – 119
	F6401	ATF – 155
	F6206	ATF7008
	F6202 (455kHz)	ATF7011
	L6206, L6208, L6403	LAU2R2J
TRANSFORMERS		
	T6201	ATB7008
	T6401	ATE7002
CAPACITORS		
	C6407	CCSQCH010C50
	C6410	CCSQCH020C50
	C6401, C6419	CCSQCH050C50
	C6208	CCSQCH100D50
	C6212, C6274, C6275, C6408	CCSQCH101J50
	C6221, C6222, C6416	CCSQCH150J50
	C6271	CCSQCH200J50
	C6415	CCSQCH330J50
	C6414	CCSQPH080D50
	C6413	CCSQPH220J50
	C6405	CCSQTH180J50
	C6234, C6235	CEAL010M50
	C6245	CEAL470M16
	C6231	CEAS010M50
	C6224	CEAS100M50
	C6243	CEAS101M16
	C6227	CEAS220M16
	C6236	CEAS2R2M50
	C6216	CEAS330M16
	C6262	CEAS3R3M50
	C6219	CEAS470M10
	C6244	CEAS470M16
	C6249, C6250, C6265, C6266	CEAS4R7M50
	C6258	CEJA470M16
	C6215	CFTXA103J50
	C6214	CFTXA224J50
	C6211, C6254, C6403, C6406, C6412	CKSQYB102K50
	C6201, C6205, C6210, C6213, C6237	CKSQYB103K50
	C6276, C6278, C6280, C6281, C6402	CKSQYB103K50
	C6409, C6417, C6418	CKSQYB103K50
	C6251, C6252	CKSQYB153K50
	C6203, C6259	CKSQYB223K50
	C6228	CKSQYB472K50
	C6209	CKSQYB473K50
	C6230	CKSQYB821K50
	C6218, C6223, C6255	CKSQYF103Z50
	C6220, C6226, C6242, C6256	CKSQYF223Z50
	C6225	CKSQYF473Z50
RESISTORS		
	R6280	RD1/4PU101J
	R6413, R6416, R6418, R6906, R6909	RS1/8S000J
	R6401	RS1/8S470J
	VR6201 (10KΩ, 0.1W)	RCP1045
	Other Resistors	RS1/10S□□□J
OTHERS		
	BN6202	TERMINAL 4 – P AKE7028
	X6202	CRYSTAL RESONATOR(456kHz) ASS1066
	X6201	CRYSTAL RESONATOR(7.2000MHz) ASS1093
	CN6201	14P SOCKET KP200IA14L

E CD ASSY

SEMICONDUCTORS		
	IC8201	BA5923FP
	IC8101	LA9240ML
	IC8301	LC78622ED
	Q8101	2SA1048
	Q8251, Q8252	2SA1560
	Q8253, Q8254	2SC4040
	D8253	1SS181
	D8251, D8252	1SS355

Mark	No.	Description	Parts No.
COILS AND FILTERS			
	L8351, L8352		LFA010K
	L8201		LFA470J
CAPACITORS			
	C8129		CCSQCH010C50
	C8145, C8352, C8354, C8356, C8358		CCSQCH101J50
	C8361, C8362		CCSQCH101J50
	C8132, C8310, C8311		CCSQCH150J50
	C8131		CCSQCH300J50
	C8127		CEAL010M50
	C8142		CEAL101M6R3
	C8126, C8139		CEAL470M16
	C8135		CEAL4R7M16
	C8124		CEALR47M50
	C8136		CEAS100M50
	C8108, C8306		CEAS101M10
	C8202		CEAS101M25
	C8101		CEAS3R3M50
	C8105		CEAS470M16
	C8109		CEASR22M50
	C8106, C8119, C8133, C8360		CKSQYB102K50
	C8102, C8122, C8123, C8130		CKSQYB103K50
	C8137, C8138, C8201, C8309, C8312		CKSQYB103K50
	C8134, C8302, C8303		CKSQYB104K25
	C8353, C8359		CKSQYB152K50
	C8111		CKSQYB153K25
	C8114, C8117, C8120, C8121		CKSQYB154K16
	C8125		CKSQYB221K50
	C8107		CKSQYB223K50
	C8110		CKSQYB331K50
	C8115, C8128		CKSQYB332K50
	C8113		CKSQYB333K25
	C8112, C8141		CKSQYB334K16
	C8355, C8357		CKSQYB471K50
	C8116, C8140		CKSQYB473K50
	C8118, C8301, C8304, C8305		CKSQYF104Z25
RESISTORS			
		All Resistors	RS1/10S□□□J
OTHERS			
	CN8003	6PJUMPER CONNECTOR	52151 – 0610
	CN8002	CONNECTOR POST	B6B – PH – K – S
	CN8005	SIDE POST 3P	BS3P – SHF – 1AA
	X8301	CERAMIC(16.9344MHz)	DSS1083
	CN8004	CONNECTOR	HLEM20R – 1
	CN8001	CONNECTOR	SLW15S – 1C7

C MOTOR ASSY

Mark	No.	Description	Parts No.
SWITCHES AND RELAYS			
	S8503		ASG7009
OTHERS			
		MOTOR PULLEY	PNW1634
		SLIDER MOTOR	VXM1033

D SW ASSY

Mark	No.	Description	Parts No.
SWITCHES AND RELAYS			
	S8502		ASG7009
	S8501		DSG1017

6. ADJUSTMENT

6.1 TUNER SECTION

■ FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1–1.

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Front End Sensitivity	98	0-30	98MHz	L6402 T6401	Adjust so that the DC voltage between the IC6201-Pin 20 becomes at maximum level.
2	TUNED IND. Lighting Level	98	18±2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

- *Before adjusting, make sure there is no gap between L6401 and L6402. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*

■ AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1–1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	Front End Sensitivity	999*1	35-45	999kHz*1	T6201	Adjust so that the DC voltage between the IC6201-Pin 20 becomes at maximum level.

*1: For the area using 10kHz step, frequencies should be 1000 kHz

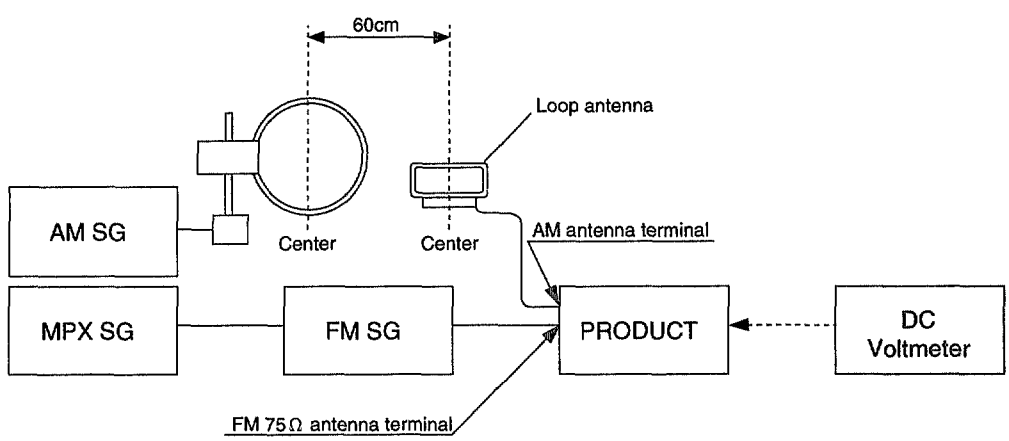


Fig. 1–1 AM and FM Adjustment Wiring Diagram

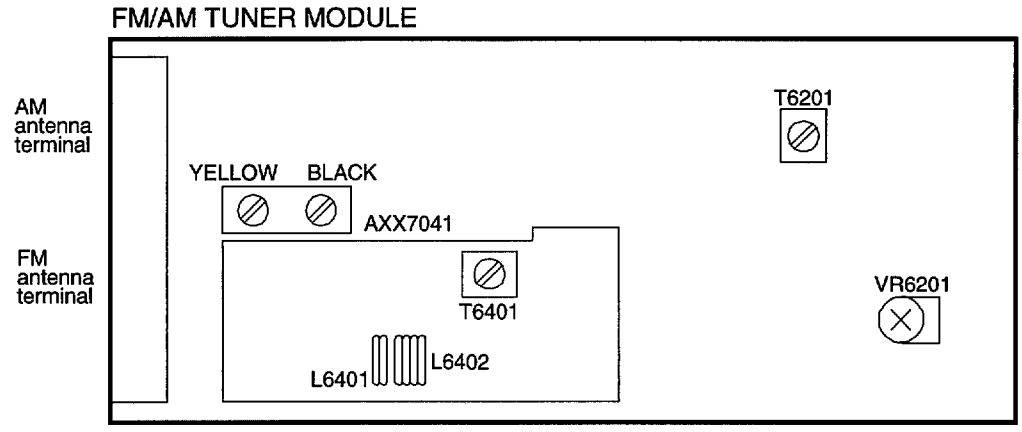


Fig. 1–2 Adjustment Points

6.2 CASSETTE DECK SECTION

• Adjustment points and test points are shown in Fig. 2-2 and Fig. 2-3.

■ Mechanical Adjustment

• Test tape: NCT-111 or STD-301 (3kHz, 30min).

1. Tape Speed Adjustment

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Procedure	Remarks
1	Deck I PLAY	NCT-111 or STD-301 (Playback: 3kHz)	DECK ASSY VR4101	PB OUT POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes 3000Hz ±20Hz. Confirm that wow & flutter level is below 0.2% (in the reverse direction, confirm that the reading is within 3000Hz ±60Hz).	

■ Electrical Adjustment

Check the following before starting.

(1) Confirm that the tape speed adjustment has been completed.
(2) Clean the heads and demagnetize them using a head eraser.
(3) Set the measurement level to 0 dBV = 1 Vrms.
(4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
STD-331E: For playback check
STD-631or STD-632: Normal blank tape
(5) Provide yourself with the following measuring devides:
- AC voltmeter (Noisemeter : filter off)
- AC millivoltmeter
- Low-frequency oscillator
- Attenuator
- Oscilloscope

(6) Adjust both right and left channels unless otherwise specified.
(7) Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
(8) Always follow the indicated adjustment order.
Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

(1) Head Azimuth Adjustment

Recording Adjustment (Deck II)

(1) Bias Oscillation Frequency Adjustment
(2) Recording Bias Adjustment
(3) ALC Operation Check

* *As the reference recording level is 250nwb / m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160nwb / m). When adjusting, pay carefull attention to the type of tape used.*

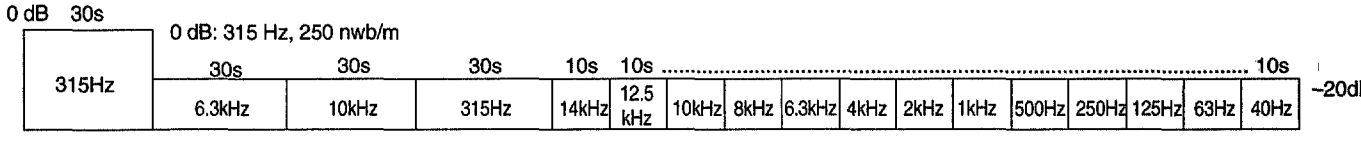


Fig. 2–1 STD-331E Test Tape

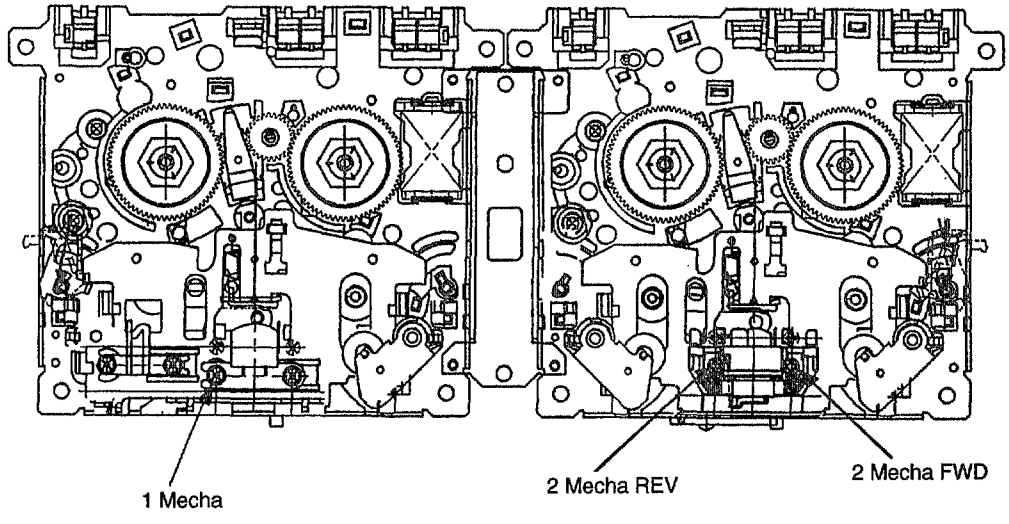


Fig. 2–2 Head Azimuth Adjustment screw

■ Playback Adjustment

- This unit is equipped with auto tape selector.
- Do not switch between forward and reverse operation with the screwdriver inserted.

(1) Head Azimuth Adjustment

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 10kHz, -20dB)	Deck I	Head azimuth adjustment screw (Fig. 2-2)	DECK PB OUT (L, Rch) (AF Assy)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.
			Deck II				

■ Recording Adjustment

(1) Bias Oscillation Frequency Adjustment

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Load the STD-631 or STD-632 test tape and set the recording mode.	Deck I	———	———	Oscillation frequency to be 105.0kHz ±2kHz.	If the ASES/COPY button for four seconds while the power is in STAND BY mode, the frequency will decrease 2 – 3 kHz.
			Deck II	L4351	Between Ⓐ point in Fig. 2-3 and GND.		

(2) Recording Bias Adjustment

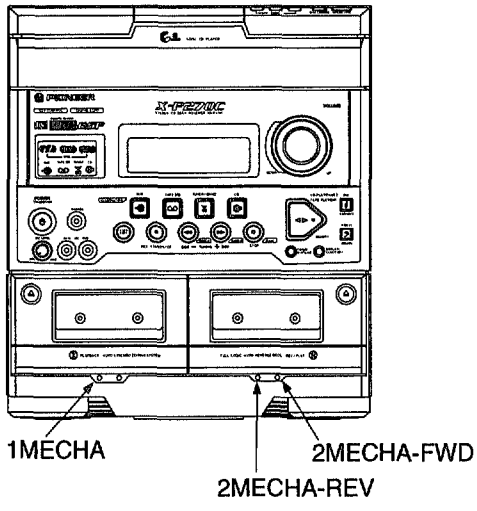
- Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC→ PLAY	Load the STD-631 or STD-632 test tape. Record the 315Hz and 10kHz signals at 25.2dBV input level and playback.	Deck I	——	DECK PB OUT (L, Rch) (AF Assy)	Repeat adjustment until playback level of the 10kHz signal is within 0±0.5dB from that of the 315Hz signal.	
			Deck II	VR4351			
2	REC	Load the STD-632 test tape and record (No signal)	Deck II	VR4351	TP BIAS V POINT	23V–26V	

(3) ALC Operation Check

Step	Mode	Input Signal/Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	REC	Input a 315Hz signal to the AUX terminal and set the input selector to AUX.	Input signal level	PB OUT POINT (L, Rch) (AF Assy)	-8.2dBV	
2			Set to a level +10dB adove the input level at step1.		Confirm that the reading is -3.2±2.5dBV	

<CASSETTE DECK>



Head azimuth adjustment point.

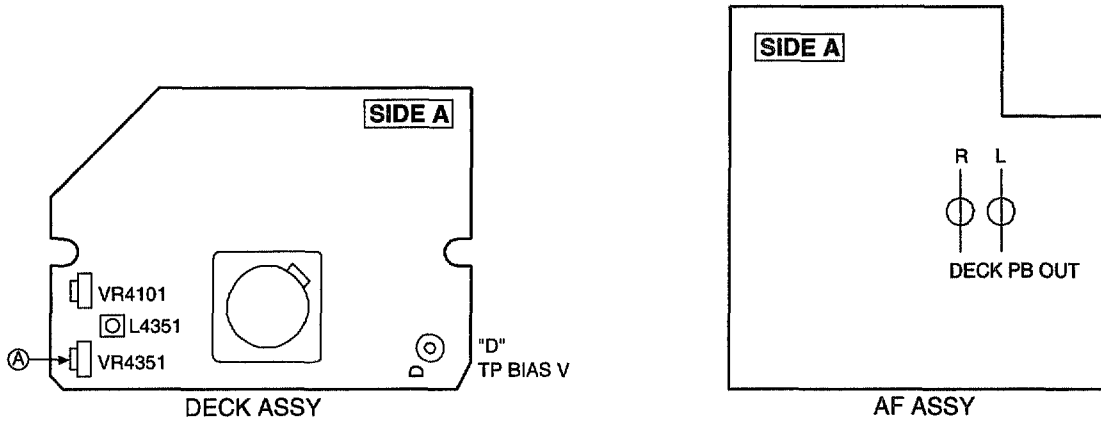


Fig. 2–3 Adjustment points

6.3 POWER SECTION

■ Adjustment of Vp

Adjust VR1001 in the Power assy so that the voltage of Vp checking point W104 is 17.5±0.1V.

Adjustment can be made when no load is applied while the power is turned ON and no signal is sent, as well as for the GND voltage or for the chassis.

Adjustment is required when the 5volte regurator, IC1001(NJM78M05) in the Power assy are replaced.

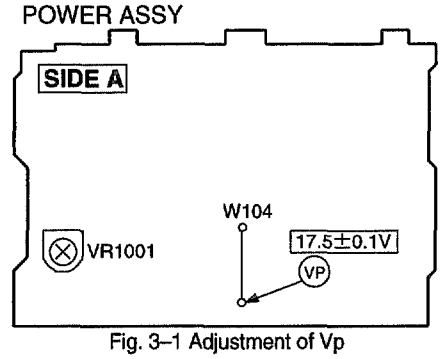
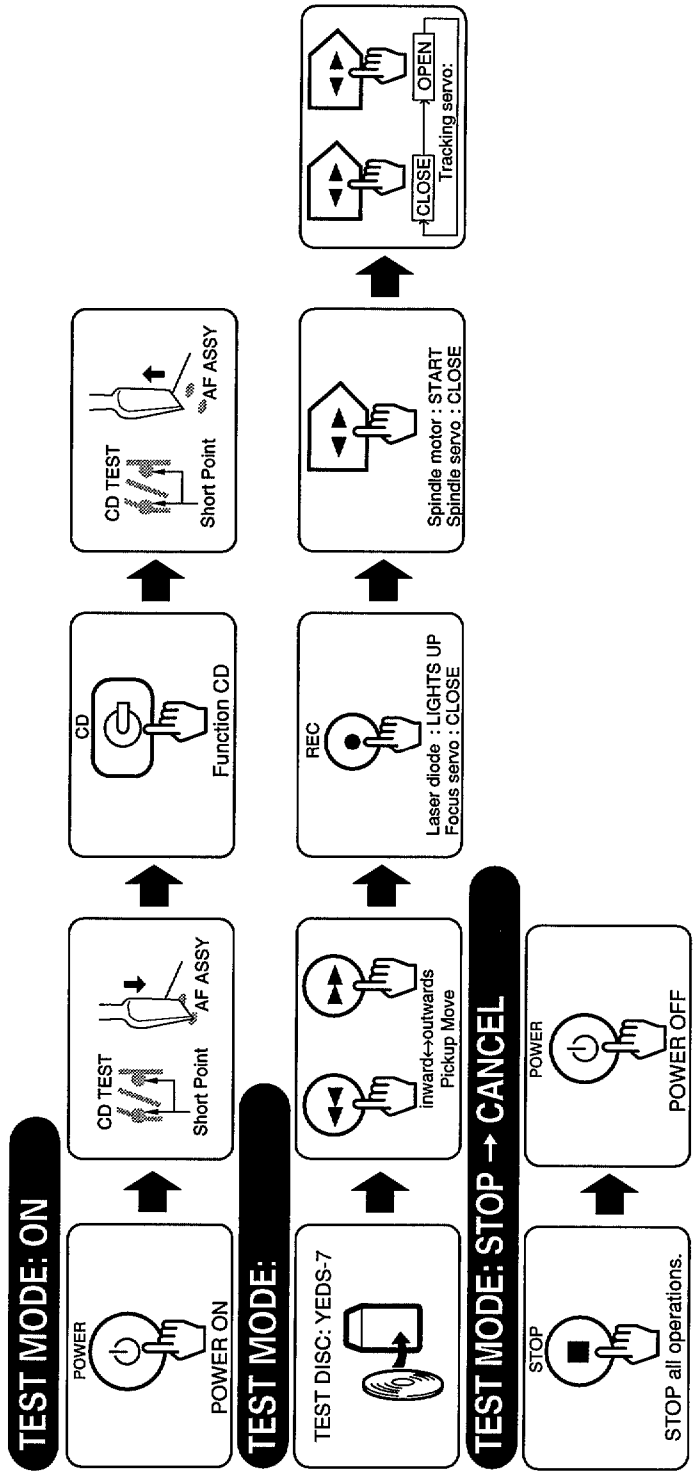


Fig. 3–1 Adjustment of Vp

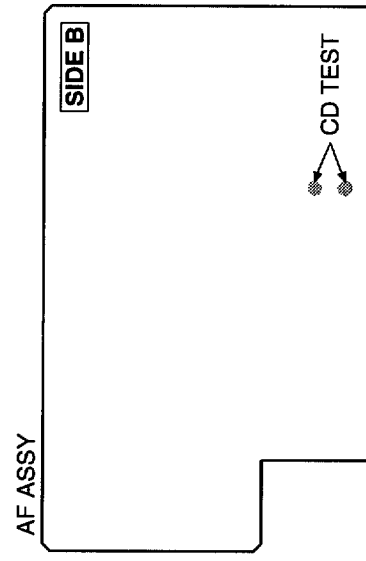
6.3 TEST MODE

NOTE: There is no information to be shown in this CD adjustment.

■ How to Start/Cancel Test Mode （テストモードの設定/解除）



■ Test Point （テストポイントの位置）



7. GENERAL INFORMATION

7.1 PARTS

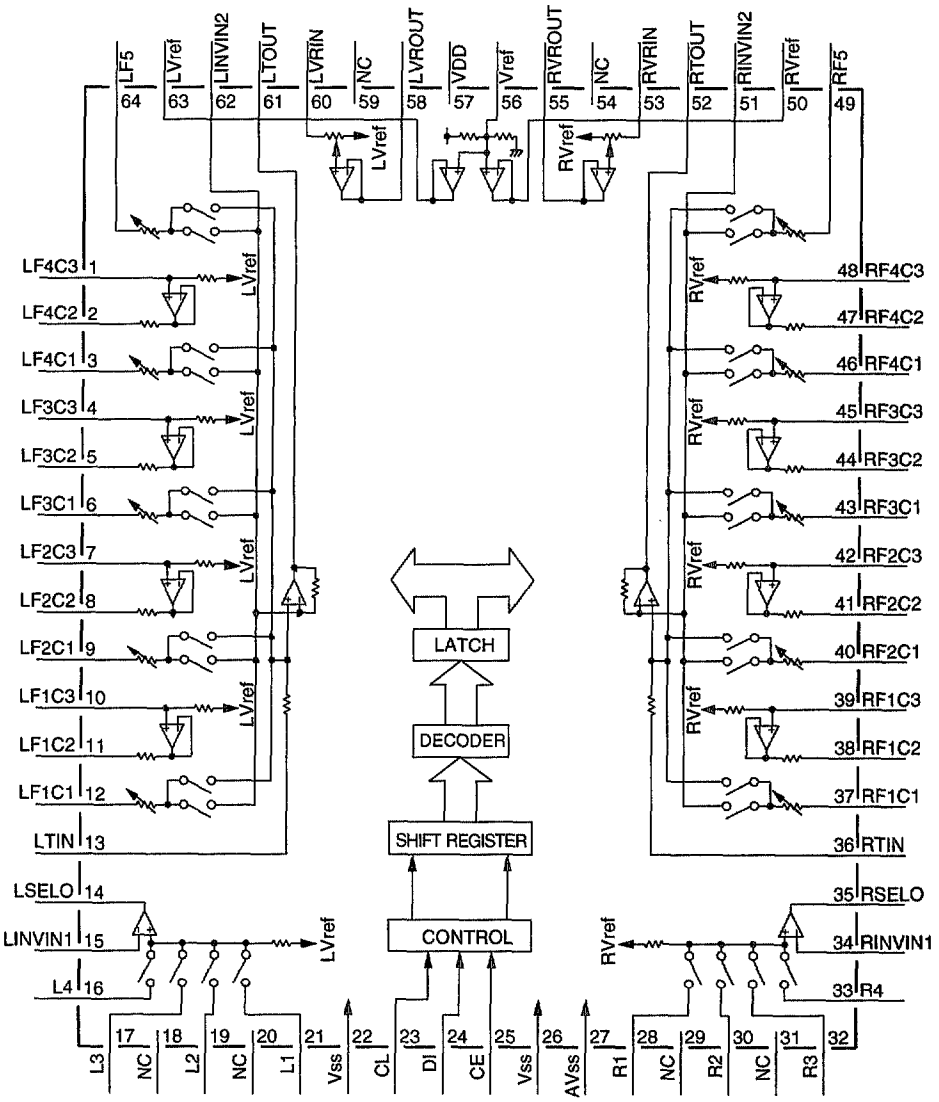
7.1.1 IC

■ LC75394NHE (IC2101 : AF ASSY)

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

● ELECTRONIC VOL IC

● Block Diagram



● Pin Function

No.	Name	Function
1	LF4C3	F4 band control block of L channel.
2	LF4C2	External capacitor connection terminal.
3	LF4C1	
4	LF3C3	F3 band control block of L channel.
5	LF3C2	External capacitor connection terminal.
6	LF3C1	
7	LF2C3	F2 band control block of L channel.
8	LF2C2	External capacitor connection terminal.
9	LF2C1	

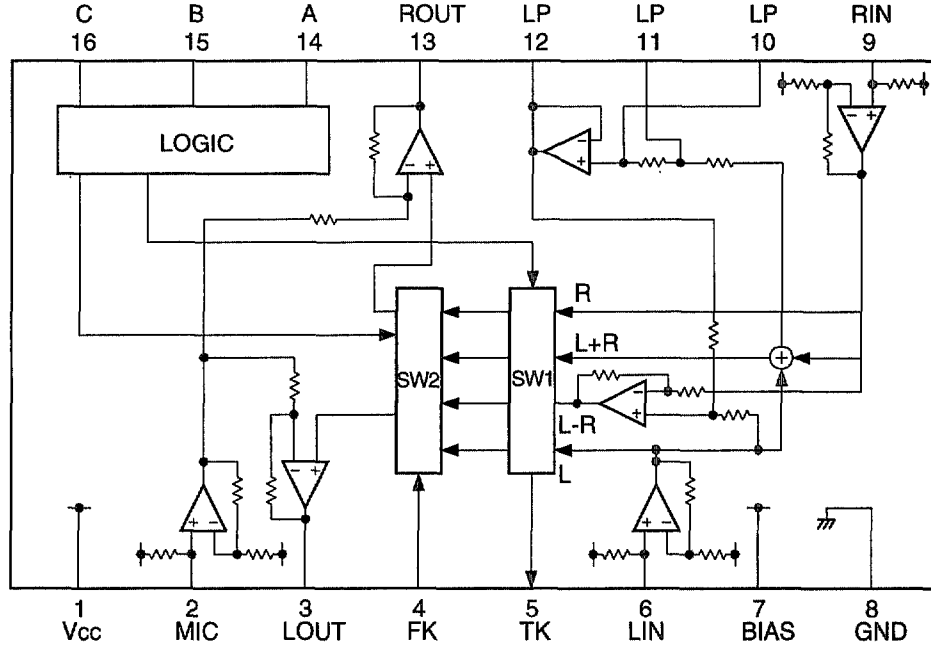
LC75394NHE

No.	Name	Function
10	LF1C3	F1 band control block of L channel.
11	LF1C2	External capacitor connection terminal.
12	LF1C1	
13	LTIN	Tone control input terminal. Should be driven at low impedance.
14	LSELO	Output terminal of input selector.
15	LINVIN1	Reverse input terminal of the operational amplifier for input gain setting.
16	L4	Signal input terminal.
17	L3	Signal input terminal.
18	NC	No Connect terminal.
19	L2	Signal input terminal.
20	NC	No Connect terminal.
21	L1	Signal input terminal.
22	Vss	Grounding terminal of internal logic.
23	CL	Input terminal for serial data and clock for control.
24	DI	Input terminal for serial data and clock for control.
25	CE	Chip enable terminal. Data is written to the internal latch when the system changes from "H" to "L", whereby the analog switches operate. Data transmission is enabled at the "H" level.
26	Vss	Grounding terminal of internal logic.
27	AVss	Grounding terminal of internal operational amplifier.
28	R1	Signal input terminal.
29	NC	No Connect terminal.
30	R2	Signal input terminal.
31	NC	No Connect terminal.
32	R3	Signal input terminal.
33	R4	Signal input terminal.
34	RINVIN1	Reverse input terminal of the operational amplifier for input gain setting.
35	RSELO	Output terminal of input selector.
36	RTIN	Tone control input terminal. Should be driven at low impedance.
37	RF1C1	F1 band control block of R channel.
38	RF1C2	External capacitor connection terminal.
39	RF1C3	
40	RF2C1	F2 band control block of R channel.
41	RF2C2	External capacitor connection terminal.
42	RF2C3	
43	RF3C1	F3 band control block of R channel.
44	RF3C2	External capacitor connection terminal.
45	RF3C3	
46	RF4C1	F4 band control block of R channel.
47	RF4C2	External capacitor connection terminal.
48	RF4C3	
49	RF5	F5 band control block. External capacitor connection terminal.
50	RVref	Common terminal for the volume, tone, and input switching parts. The capacitor between LVref (RVref) and VSS is used for residual resistance when the volume is decreased. Thus, adequate attention should be taken for the capacity of the capacitor. Voltage higher than VDD must not be applied.
51	RINVIN2	Reverse input terminal of the operational amplifier for graphic equalizer. Connecting a capacitor between INVIN2 and TOUT eliminates unwanted band and provides measures for oscillation.
52	RTOUT	Tone control output terminal.
53	RVRIN	Volume input terminal. Should be driven at low impedance.
54	NC	No Connect terminal.
55	RVROUT	Volume output terminal.
56	Vref	VDD/2 voltage generator. Connects the capacitor between Vref and VSS as measures for power ripple.
57	VDD	Power terminal.
58	LVROUT	Volume output terminal.
59	NC	No Connect terminal.
60	LVRIN	Volume input terminal. Should be driven at low impedance.
61	LTOUT	Tone control output terminal.
62	LINVIN2	Reverse input terminal of the operational amplifier for graphic equalizer. Connecting a capacitor between INVIN2 and TOUT eliminates unwanted band and provides measures for oscillation.
63	LVref	Common terminal for the volume, tone, and input switching parts. The capacitor between LVref (RVref) and VSS is used for residual resistance when the volume is decreased. Thus, adequate attention should be taken for the capacity of the capacitor. Voltage higher than VDD must not be applied.
64	LF5	F5 band control block. External capacitor connection terminal.

■ BA3837 (IC2151 : AF ASSY)

● VOCAL FADER

● Block Diagram



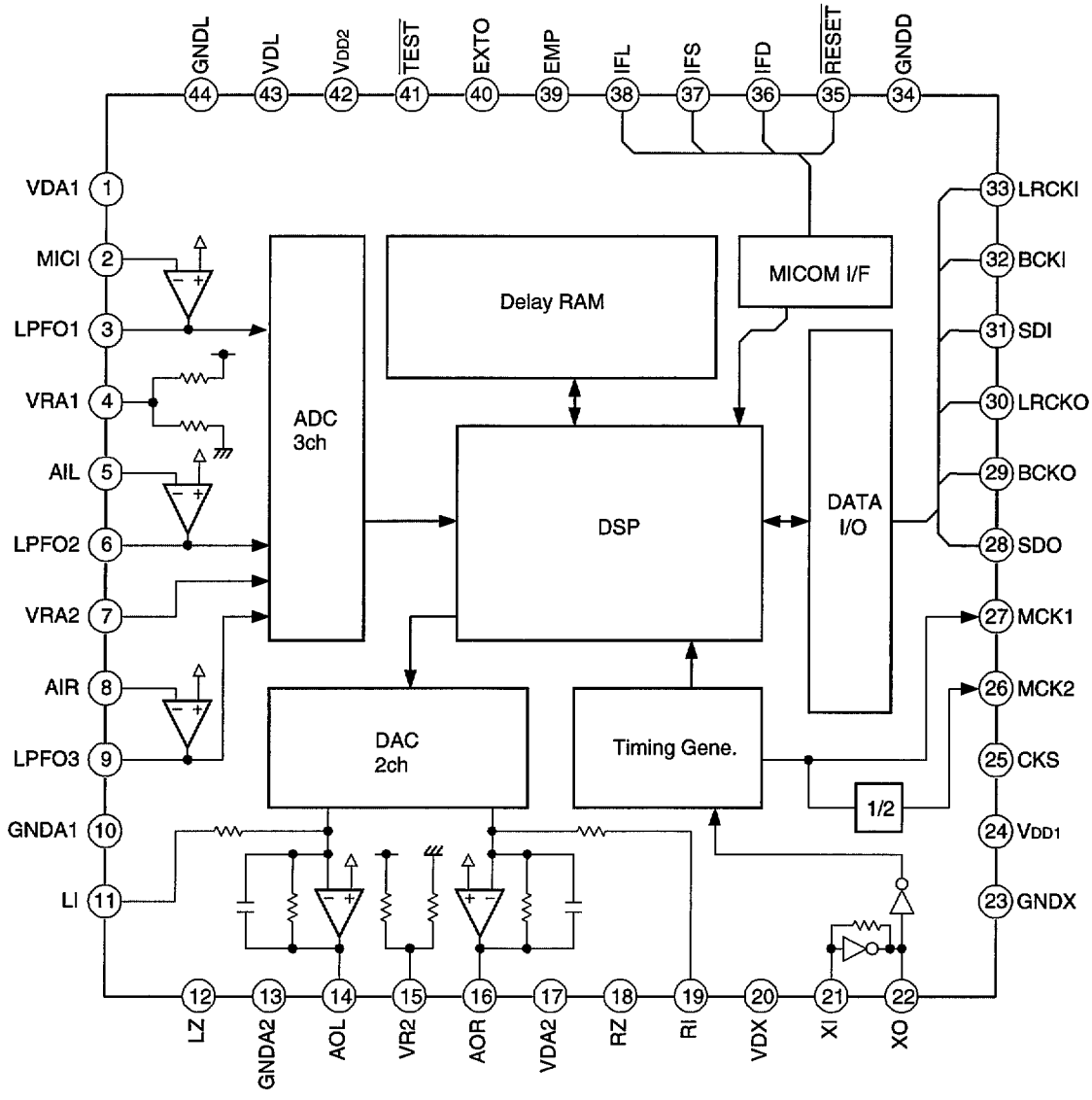
● Pin Function

No.	Name	Function
1	Vcc	Vcc
2	MIC IN	Mixing input terminal of microphone audio.
3	LOUT	L-ch output terminal.
4	FK	Terminal to input signal from the key controller.
5	TK	Terminal to output signal to the key controller.
6	LIN	L signal input terminal.
7	BIAS	Signal bias circuit terminal.
8	GND	GND
9	RIN	R signal input terminal.
10	LPF1	LPF time constant terminal.
11	LPF2	LPF time constant terminal.
12	LPF3	LPF output terminal.
13	ROUT	R-ch output terminal.
14	CONTA	Mode switching terminal A.
15	CONTB	Mode switching terminal B.
16	CONTC	Mode switching terminal C.

■ TC9409BF-001 (IC2201 : AF ASSY)

● DSP

● Block Diagram



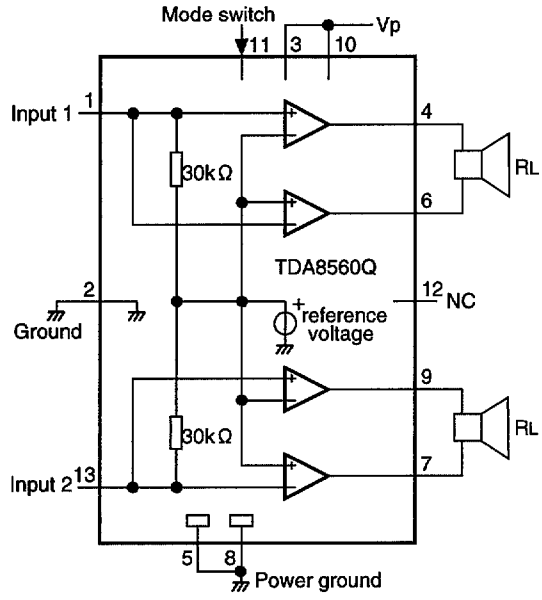
● Pin Function

No.	Name	I/O	Function
1	VDA1	-	ADC power supply.
2	MICI	I	LPF input for MIC input.
3	LPFO1	O	LPF output for MIC input.
4	VRA1	-	ADC reference voltage.
5	AIL	I	LPF input for line input Lch.
6	LPFO2	O	LPF output for line input Lch.
7	VRA2	-	ADC reference voltage.
8	AIR	I	LPF input for line input Rch.
9	LPFO3	O	LPF output for line input Rch.
10	GNDA1	-	ADC grounding.
11	LI	I	L-ch analog addition input.
12	LZ	O	L-ch digital input zero detection.
13	GNDA2	-	DAC grounding.
14	AOL	O	DAC output Lch.
15	VR2	-	DAC reference voltage.
16	AOR	O	DAC output Rch.
17	VDA2	-	DAC power supply.
18	RZ	O	R-ch digital input zero detection.
19	RI	I	R-ch analog addition input.
20	VDX	-	Oscillation power supply.
21	XI	I	Oscillator connection terminal (either 256, 384, 512 or 768 fs).
22	XO	O	Oscillator connection terminal.
23	GNDX	-	Oscillation grounding.
24	V_{DD1}	-	Digital power supply.
25	CKS	I	Master clock selection (H: 256/384 fs, L: 512/768 fs).
26	MCK2	O	Oscillation clock 1/2 dividing output.
27	MCK1	O	Oscillation clock output.
28	SDO	O	Digital audio data output.
29	BCKO	O	Bit clock output.
30	LRCKO	O	Channel clock output.
31	SDI	I	Digital audio data input.
32	BCKI	I	Bit clock input.
33	LRCKI	I	Channel clock input.
34	GNDD	-	Digital grounding.
35	$\overline{\text{RESET}}$	I	Reset (L:reset). Pullup resistance.
36	IFD	I	Microprocessor I/F data input.
37	IFS	I	Microprocessor I/F data shift clock input.
38	IFL	I	Microprocessor I/F latch pulse input.
39	EMP	I	De-emphasis setting (de-emphasis filter ON at H).
40	EXTO	O	Expansion output terminal.
41	$\overline{\text{TEST}}$	I	Test mode setting (normally H: fixed). Pullup resistance.
42	V_{DD2}	-	Digital power supply.
43	VDL	-	Digital power supply for DRAM.
44	GNDL	-	Digital grounding for DRAM.

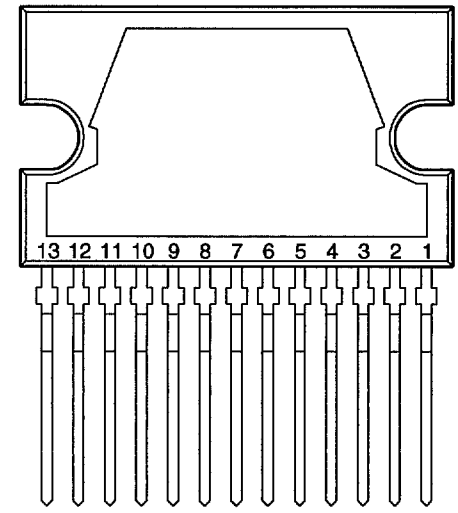
■ TDA8560Q (IC1201 : POWER ASSY)

● POWER AMP

● Block Diagram



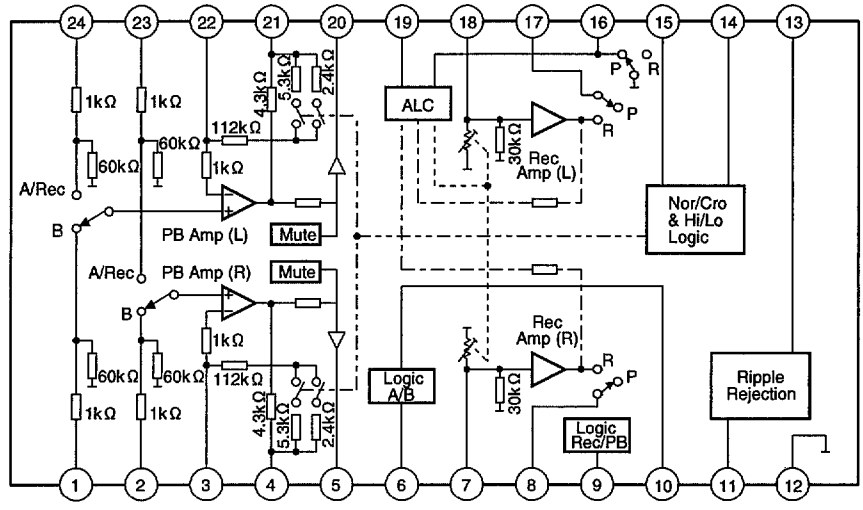
● Pin Assignment



■ AN7348K (IC4201 : DECK ASSY)

● PB/REC IC

● Block Diagram



● Pin Assignment

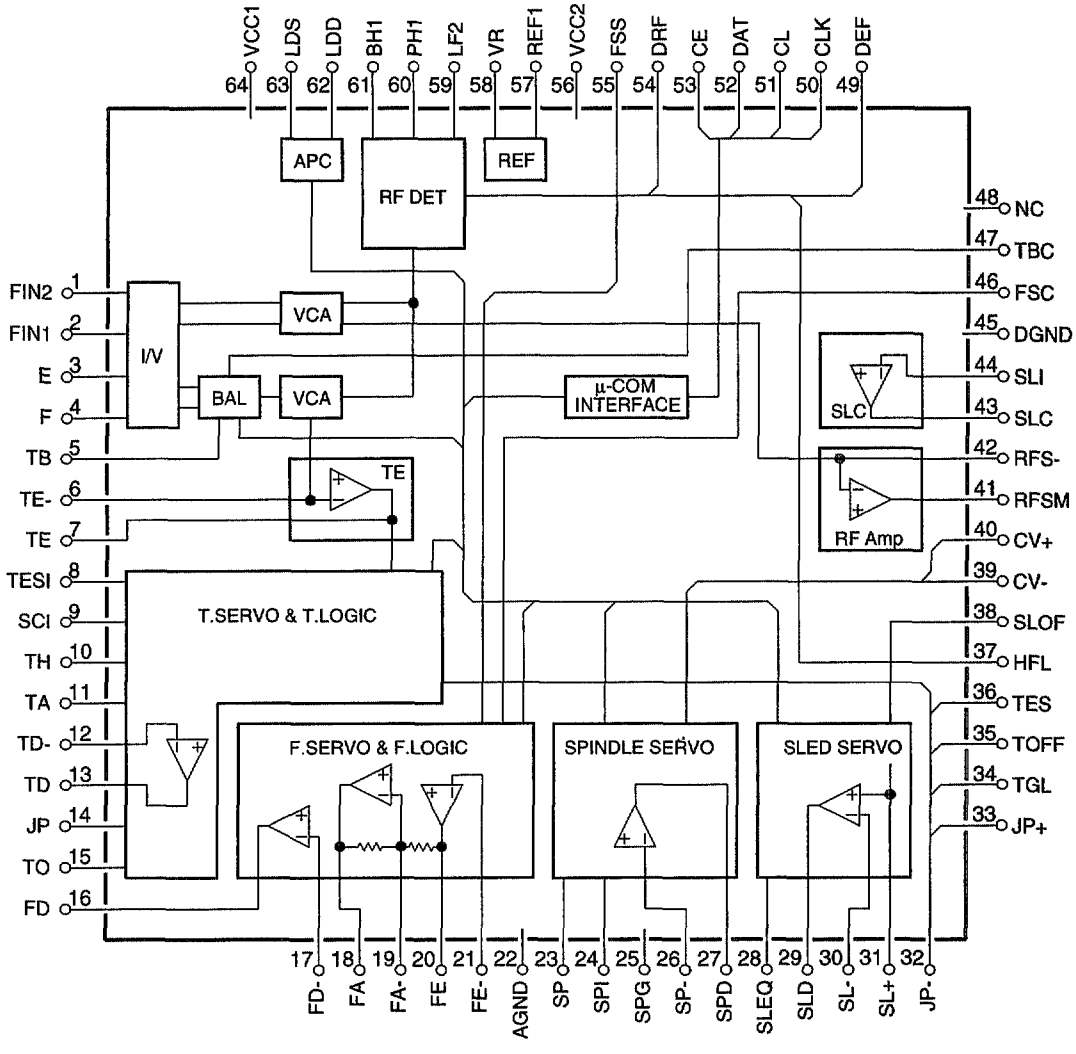
No.	Function
1	L-Ch. PB Amp Input (B).
2	R-Ch. PB Amp Input (B).
3	R-Ch. Negative Feedback.
4	R-Ch. PB Equalization.
5	R-Ch. PB Output.
6	AB Switching Time Constant.
7	R-Ch. REC Input.
8	R-Ch. REC Output.
9	REC/PB Select.
10	Tape A/B Select.
11	Ripple Filter.
12	Output Gnd.

No.	Function
13	Vcc
14	Normal/Cro2 Select.
15	Hi/Lo Dubbing Select.
16	ALC Time Constant.
17	L-Ch. REC Output.
18	L-Ch. REC Input.
19	ALC Low Cut.
20	L-Ch. PB Amp Output.
21	L-Ch. PB Equalization.
22	L-Ch. Negative Feedback.
23	R-Ch. PB Amp İnput (A).
24	L-Ch. PB Amp Input (A).

■ LA9240ML (IC8101 : CD ASSY)

● SERVO SIGNAL PROCESSOR IC FOR CD PLAYER

● Block Diagram



● Pin Function

No.	Name	I/O	Function
1	FIN2	I	Pin for connection of the photodiode of the pickup. Generates RF signal by addition with the FIN1 pin, and FE signal by subtraction.
2	FIN1	I	Pin for connection of the photodiode of the pickup.
3	E	I	Pin for connection of the photodiode of the pickup. Generates TE signal by subtraction with the F pin.
4	F	I	Pin for connection of the photodiode of the pickup.
5	TB	I	Pin for DC component input of TE signal.
6	TE-	I	Pin to connect resistance for gain setting of TE signal between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES (Track Error Sense) comparator input pin. Passes and inputs TE signal through the band-pass filter.
9	SCI	I	Input pin for shock detection.
10	TH	I	Pin for setting tracking gain time constant.
11	TA	O	TA amplifier output pin.
12	TD-	I	Pin to form the tracking phase compensation constant between the TD and VR pins.
13	TD	O	Pin for setting tracking phase compensation.
14	JP	I	Pin for setting tracking jump signal (kick pulse) amplitude.
15	TO	O	Tracking control signal output pin.

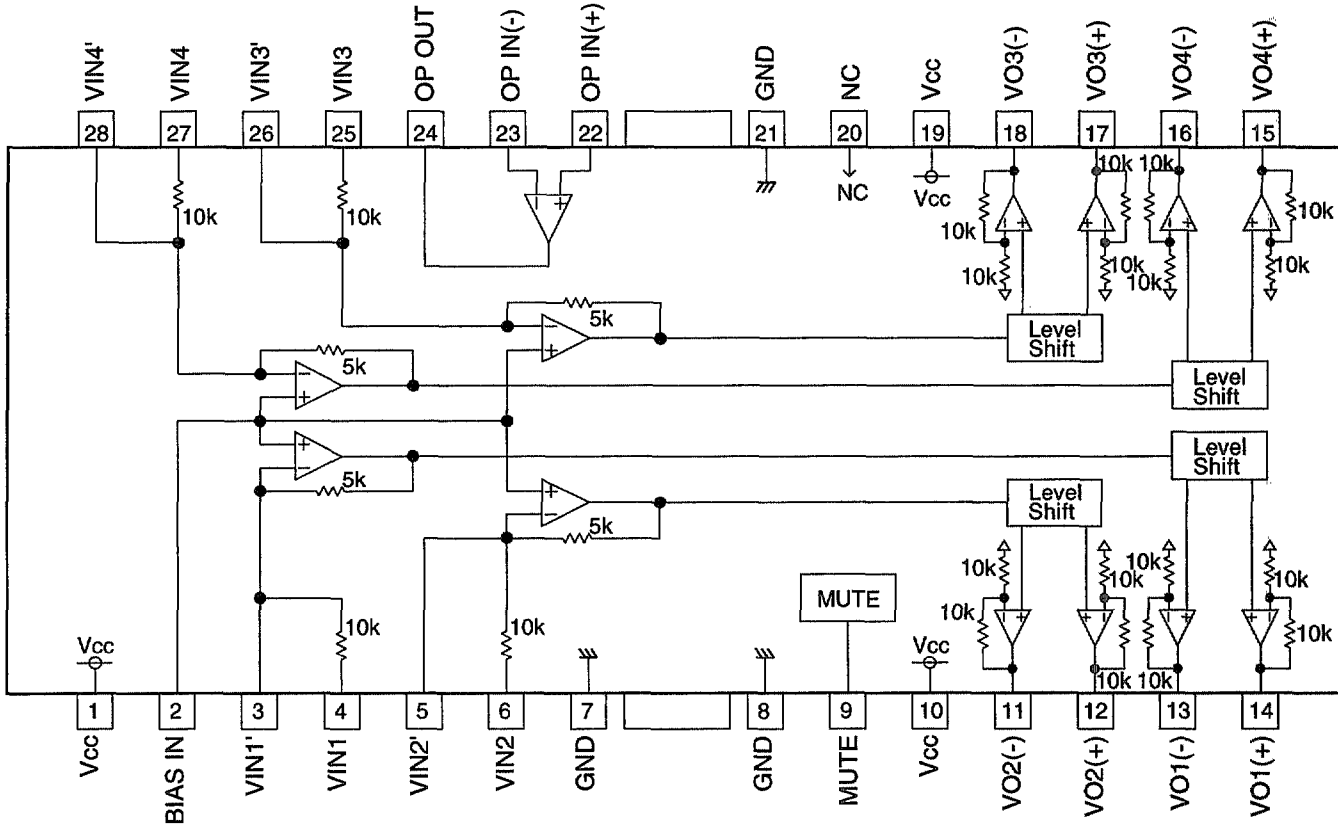
LA9240ML

No.	Name	I/O	Function
16	FD	O	Focusing control signal output pin.
17	FD-	I	Pin to form the focusing phase compensation constant between the FD and FA pins.
18	FA	O	Pin to form the focusing phase compensation constant between the FD- and FA- pins.
19	FA-	I	Pin to form the focusing phase compensation constant between the FA and FE pins.
20	FE	O	Output pin of FE signal.
21	FE-	I	Pin to connect the resistance for gain setting of FE signal between the FE pin.
22	AGND	-	GND for analog signal.
23	SP	O	Single end output of CV+/CV- pin input signal.
24	SPI	I	Spindle amplifier input.
25	SPG	I	Resistance connection pin for gain setting in 12-cm mode for spindle.
26	SP-	I	Pin for connection of spindle phase compensation constant, as well as with the SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin for connection of thread phase compensation constant.
29	SLD	O	Thread control signal output pin.
30	SL-	I	Pin to input thread feeding signal from the microprocessor.
31	SL+	I	Pin to input thread feeding signal from the microprocessor.
32	JP+	I	Pin to input tracking jump signal from DSP.
33	JP+	I	Pin to input tracking jump signal from DSP.
34	TGL	I	Pin to input tracking gain control signal from DSP. Tracking is set to gain low when TGL is "H".
35	TOFF	I	Pin to input tracking OFF control signal from DSP. Tracking is OFF when TOFF is "H".
36	TES	O	Pin to output TES signal to DSP.
37	HFL	I	High Frequency Level to be used for judgment whether the phase of the main beam is on the bit or mirror.
38	SLOF	I	Thread servo OFF control input pin.
39	CV-	I	Pin to input CLV error signal from DSP.
40	CV+	I	Pin to input CLV error signal from DSP.
41	RFSM	O	RF output pin.
42	RFS-	I	Pin for RF gain setting and EFM signal 3T compensation constant setting, as well as with the RFSM pin.
43	SLC	O	Slice Level Control. Output pin to control the level of data slice by DSP of RF waveforms.
44	SLI	I	Input pin to control the level of data slice by DSP.
45	DGND	-	GND pin of the digital system.
46	FSC	O	Output pin for focus search smoothing capacitor.
47	TBC	I	Tracking Balance Control. Pin to set EF balance variable range.
48	NC	-	No Connect.
49	DEF	O	Pin to output defect detection of disc.
50	CLK	I	Reference clock input pin. Frequency of 4.23MHz is input from DSP.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	Detect RF. RF level detection output.
55	FSS	I	Focus Search Select. Pin to switch focus search mode (switching between ü)search and +search for the reference voltage).
56	VCC2	-	VCC pin for the servo and digital systems.
57	REFI	I	Pin for connection of reference voltage bypass capacitor.
58	VR	O	Reference voltage output pin.
59	LF2	I	Pin for setting defect detection time constant of disc.
60	PH1	I	Pin to connect capacitor for peak hold of RF signal.
61	BH1	I	Pin to connect capacitor for bottom hold of RF signal.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	-	VCC pin for the RF system.

■ BA5923FP (IC8201 : CD ASSY)

● POWER DRIVER IC FOR CD PLAYER

● Block Diagram



● Pin Function

No.	Name	I/O	Function
1	Vcc	-	Vcc
2	BIAS IN	I	Bias amplifier input.
3	VIN1'	I	Driver CH1 input, gain adjustment pin.
4	VIN1	I	Driver CH1 input.
5	VIN2'	I	Driver CH2 input, gain adjustment pin.
6	VIN2	I	Driver CH2 input.
7	GND	-	Substrate Ground.
8	GND	-	Ground
9	MUTE	I	Driver mute control input.
10	Vcc	-	Vcc
11	VO2 (-)	O	Driver CH2 inverted output.
12	VO2 (+)	O	Driver CH2 noninverted output.
13	VO1 (-)	O	Driver CH1 inverted output.
14	VO1 (+)	O	Driver CH1 noninverted output.

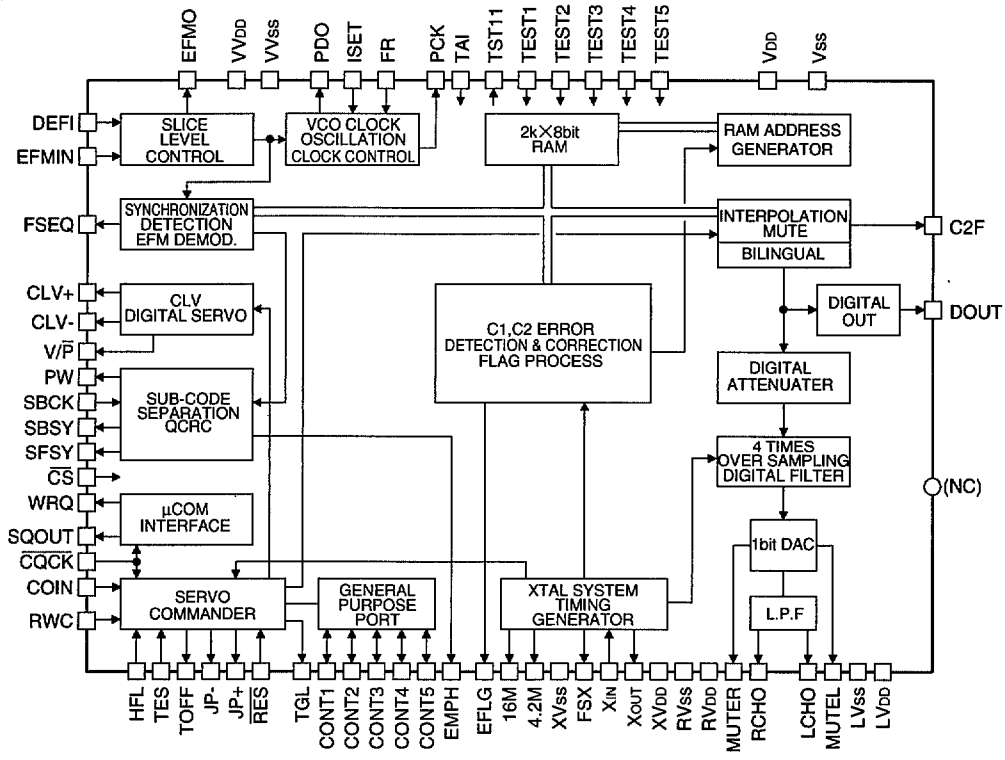
No.	Name	I/O	Function
15	VO4 (+)	O	Driver CH4 noninverted output.
16	VO4 (-)	O	Driver CH4 inverted output.
17	VO3 (+)	O	Driver CH3 noninverted output.
18	VO3 (-)	O	Driver CH3 inverted output.
19	Vcc	-	Vcc
20	NC	-	
21	GND	-	Substrate Ground.
22	OP IN (+)	I	Op-amp input, positive.
23	OP IN (-)	I	Op-amp input, negative.
24	OP OUT	O	Op-amp output.
25	VIN3	I	Driver CH3 input.
26	VIN3'	I	Driver CH3 input, gain adjustment pin.
27	VIN4	I	Driver CH4 input.
28	VIN4'	I	Driver CH4 input, gain adjustment pin.

Note) Symbol of + and - (output of DRIVERS) means polarity to input pin.
(For example if voltage of pin4 is high, pin14 is high.)

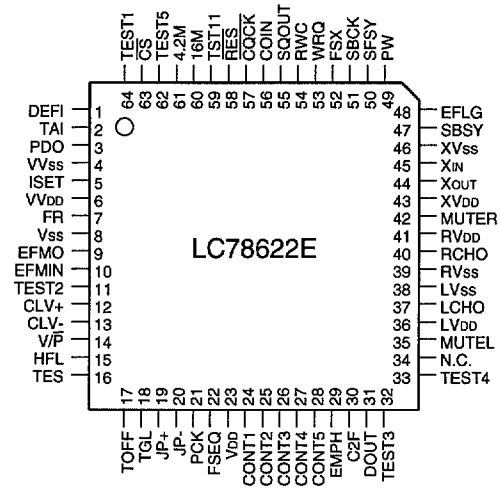
■ LC78622ED (IC8301 : CD ASSY)

● SIGNAL PROCESSOR AND SERVO CONTROL IC FOR CD PLAYER

● Block Diagram



● Pin Assignment



● Pin Function

No.	Name	I/O	Function	
1	DEFI	I	Defect detection signal (DEF) input. (Must be connected to 0V when unused).	
2	TAI	I	PLL pins	Test input. A pull-down resistor is built-in. Must be connected to 0V.
3	PDO	O		External VCO control phase comparator output.
4	VVss	-		Internal VCO ground. Must be connected to 0V.
5	ISET	AI		PDO output current adjustment resistor connection.
6	VVDD	-		Internal VCO power supply.
7	FR	AI		VCO frequency range adjustment.
8	Vss	-	Digital system ground. Must be connected to 0V.	
9	EFMO	O	Since level control	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.

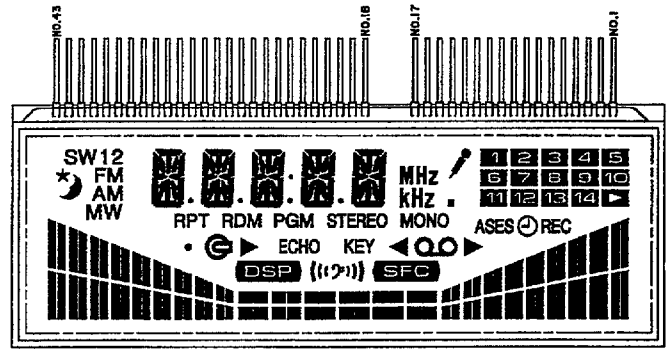
● Pin Function

No.	Name	I/O	Function	
11	TEST2	I	Test pin. A pull-down resistor is built-in. Must be connected to 0V.	
12	CLV+	O	Disc motor control output. Can be set to 3-value output by microprocessor command.	
13	CLV-	O	Three-value output is also possible when specified microprocessor command.	
14	V/P	O	Rough servo/phase control automatic switching monitor output. Outputs a high during rough servo and a low level.	
15	HFL	I	Track detection signal input. This is a Schmitt input.	
16	TES	I	Tracking error signal input. This is a Schmitt input.	
17	TOFF	O	Tracking off output.	
18	TGL	O	Tracking gain switching output. Increase the gain when low.	
19	JP+	O	Track jump output.	
20	JP-	O	Three-value output is also possible when specified by microprocessor command.	
21	PCK	O	EFM data playback clock monitor. Outputs 4.3218MHz when the phase command.	
22	FSEQ	O	Synchronization signal detection output. Outputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal range.	
23	VDD	-	Digital system power supply.	
24	CONT1	I/O	General-purpose 1.	Controlled by serial data commands from the microprocessor. Any of these that are unused must be either set up as input ports and connected to 0V. or set up as output ports and left open.
25	CONT2	I/O	General-purpose 2.	
26	CONT3	I/O	General-purpose 3.	
27	CONT4	I/O	General-purpose 4.	
28	CONT5	I/O	General-purpose 5.	
29	EMPH	O	De-emphasis monitor pin. A high level indicates playback of a de-emphasis disc.	
30	C2F	O	C2 flag output.	
31	DOUT	O	Digital ouput. (EIAJ format)	
32	TEST3	I	Test input. A pull-down resistor is built-in. Must be connected to 0V.	
33	TEST4	I	Test input. A pull-down resistor is built-in. Must be connected to 0V.	
34	N.C.	-	Unused. Must be left open.	
35	MUTEL	O	Left channel one-bit D/A converter	Left channel mute output.
36	LVDD	-		Left channel power supply.
37	LCHO	O		Left channel output.
38	LVss	-		Left channel ground. Must be connected to 0V.
39	RVss	-	Right channel one-bit D/A converter	Right channel ground. Must be connected to 0V.
40	RCHO	O		Right channel output.
41	RVDD	-		Right channel power supply.
42	MUTER	O		Right channel mute output.
43	XVDD	-	Crystal oscillator power supply.	
44	XOUT	O	Connections for a 16.9344 crystal oscillator element.	
45	XIN	I		
46	XVss	-	Crystal oscillator ground. Must be connected to 0V.	
47	SBSY	O	Subcode block synchronization signal.	
48	EFLG	O	C1, C2, signal and double error correction monitor pin.	
49	PW	O	Subcode P, Q, R, S, T, U and W output.	
50	SFSY	O	Subcode frame synchronization signal output. This signal falls when the subcodes are in the standby state.	
51	SBCK	I	Subcode readout clock input. This is a Schmitt input. (Must be connected to 0V when unused).	
52	FSX	O	Output for the 7.35kHz synchronization signal divided from crystal oscillator.	
53	WRQ	O	Subcode Q output standby output.	
54	RWC	I	Read/write control input. This is a Schmitt input.	
55	SQOUT	O	Subcode Q output.	
56	COIN	I	Command input from the control microprocessor.	
57	CQCK	I	input for both the command input acquisition clock and the SQOUT pin subcode readout clock input. This is a Schmitt input.	
58	RES	I	Chip reset input. This pin must be set low briefly after power is first applied.	
59	TST11	O	Test output. Leave open. (Normaly outputs a low level).	
60	16M	O	16.9344MHz output.	
61	4.2M	O	4.2336MHz output.	
62	TEST5	I	Test input. A pull-down resistor is built-in. Must be connected to 0V.	
63	CS	I	Chip select input. A pull-down resistor is built in. Must be connected to 0V if not controlled.	
64	TEST1	I	Test input. A pull-down resistor is built-in. Must be connected to 0V.	

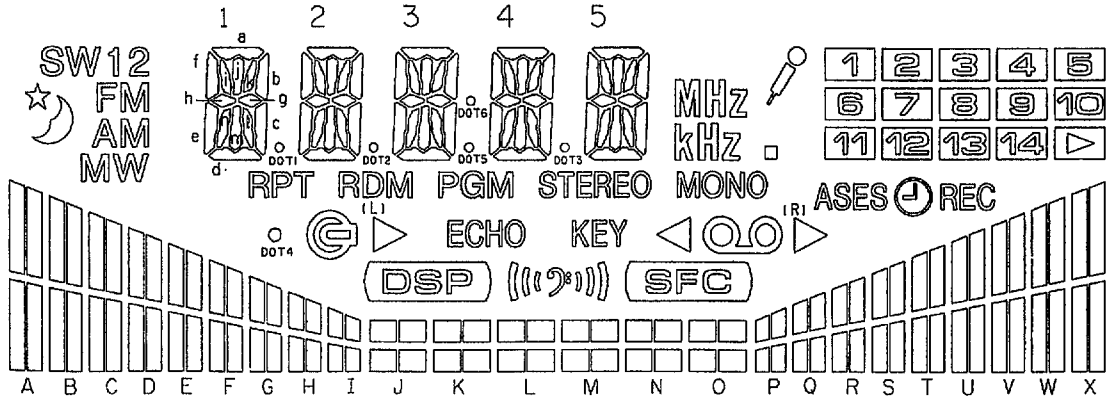
7.1.2 DISPLAY

■ AAV7031 (V1701 : LCD ASSY)

- **LCD**
- Pin Assignment



- Segment Assignment



- Pin Connection

NO.	COM.1	COM.2	COM.3	COM.4
1				COM.4
2			COM.3	
3		COM.2		
4	COM.1			
5	5	10	▷	X
6	4	9	14	W
7	3	8	13	V
8	2	7	12	REC
9	1	6	11	◷
10	✎	□	ASES	U
11	MHz	KHz	MONO	T
12	5k	5b	5c	▷(R)
13	5a	5j	5g	5l
14	5i	5h	5n	5m
15		5f	5e	5d
16	∞	DOT3	STEREO	◁
17	4k	4b	4c	KEY
18	4a	4j	4g	4l
19	4i	4h	4n	4m
20		4f	4e	4d
21	DOT6	DOT5	PGM	SFC
22	3k	3b	3c	ECHO

NO.	COM.1	COM.2	COM.3	COM.4
23	3a	3j	3g	3l
24	3i	3h	3n	3m
25		3f	3e	3d
26		DOT2	RDM	G
27	2k	2b	2c	F
28	2a	2j	2g	2l
29	2i	2h	2n	2m
30		2f	2e	2d
31		DOT1	RPT	DOT4
32	1k	1b	1c	E
33	1a	1j	1g	1l
34	1i	1h	1n	1m
35		1f	1e	1d
36	2	FM	AM	MW
37	1	SW	☽	D
38	A	B	C	
39	K	J	I	H
40	((ｱ))	DSP	▷(L)	ⓔ
41	((ｱ))	((ｱ))	((ｱ))	((ｱ))
42	L	M	N	O
43	S	R	Q	P

Notes.

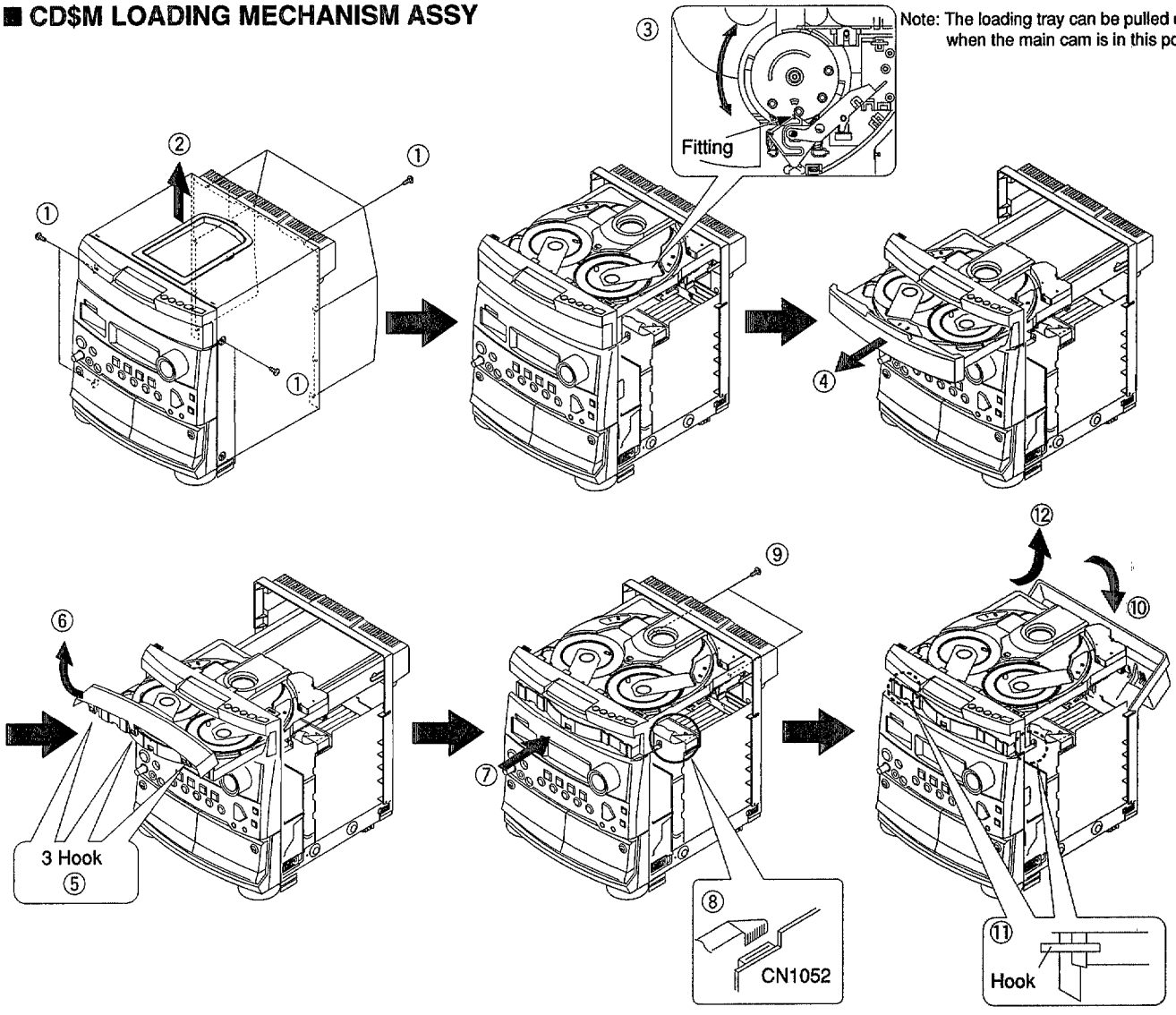
1. TN transmissive type,positive display
2. Dynamic drive : 1/4duty,1/3bias
3. Driving voltage : 5volt
4. Inside of chain line is the viewing area
5. Polarizers are with protective film.

7.2 DIAGNOSIS

7.2.1 DISASSEMBLY

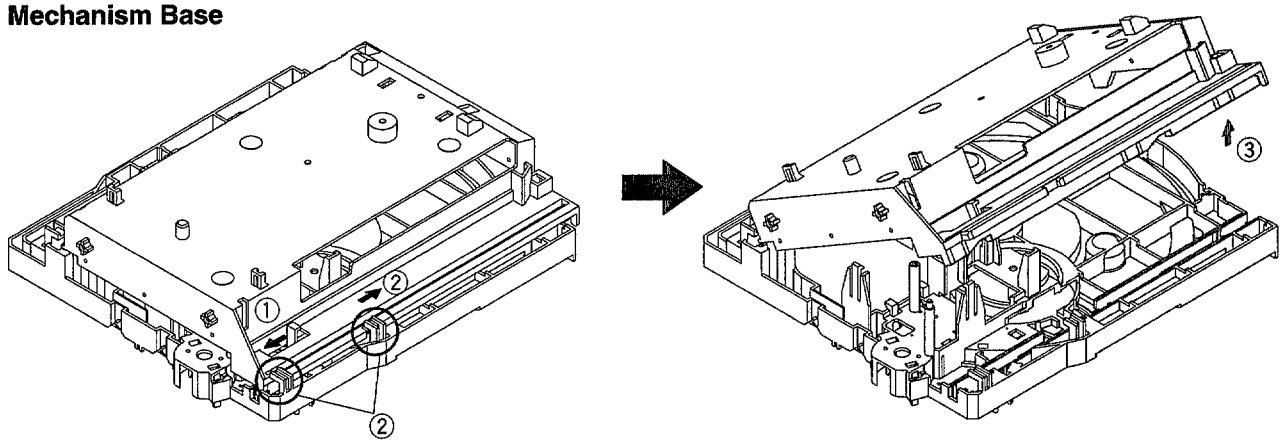
■ CD$M LOADING MECHANISM ASSY

Note: The loading tray can be pulled out when the main cam is in this position.

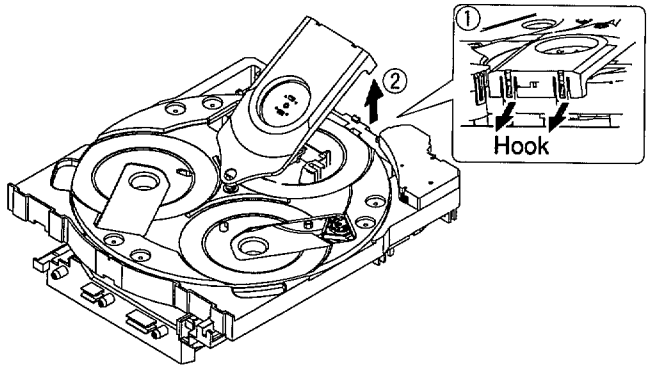


■ CD $M LOADING MECHANISM ASSY ADDITIONAL TO JOB

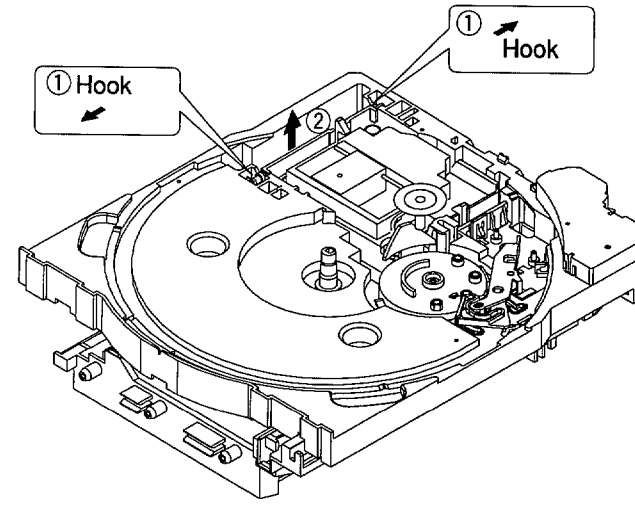
● **Mechanism Base**



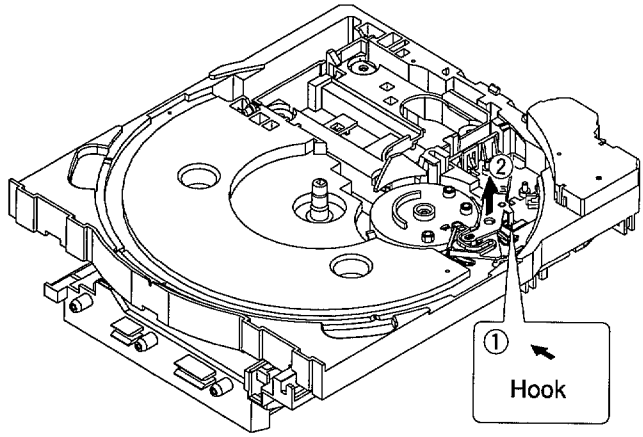
● **Clamper Holder**



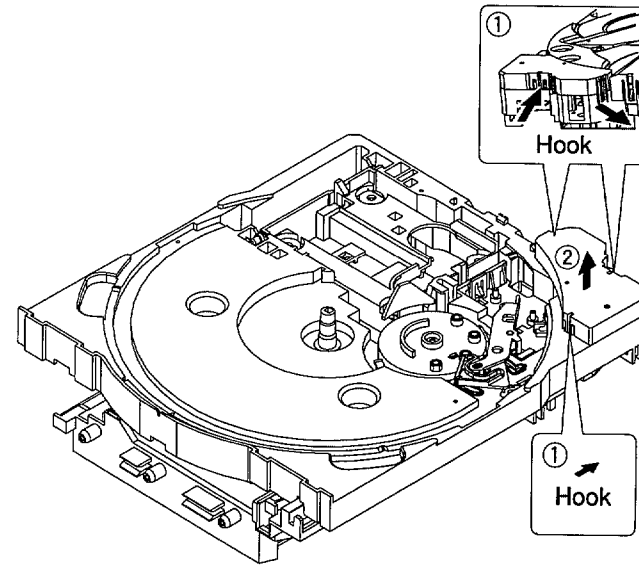
● **Servo Base**



● **Actuater**

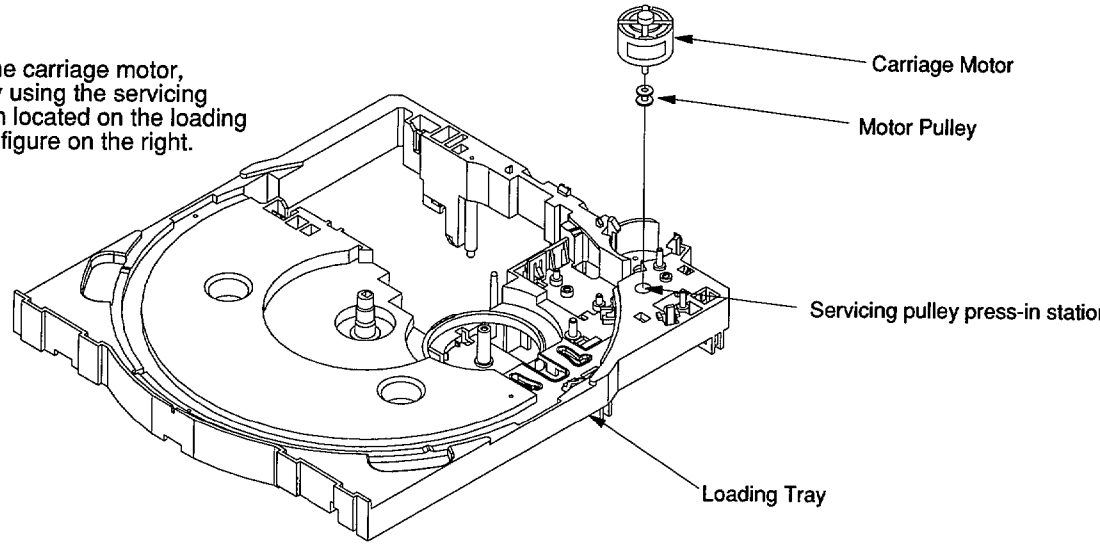


● **Motor Cover**



■ FITTING THE PULLEY INTO THE CARRIAGE MOTOR

For replacement of the carriage motor, fit the motor pulley by using the servicing pulley press-in station located on the loading tray, as shown in the figure on the right.



7.2.2 TROUBLESHOOTING

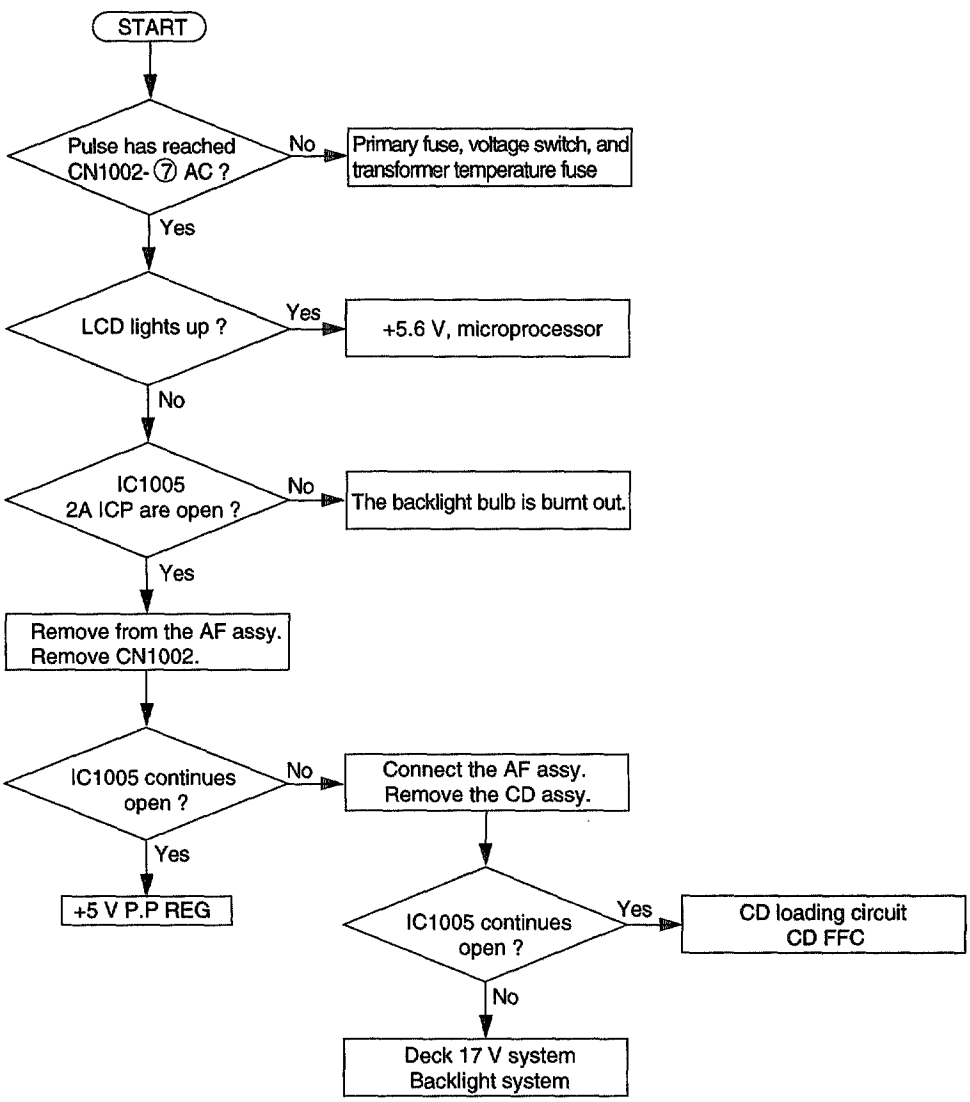
Note Do not short-circuit IC1003 and IC1005 (ICP) for diagnosis. If the regulator is damaged by short circuit in ICP, the parts will be damaged to a wide extent of setting, making repair difficult.

LIST OF ERROR CODES

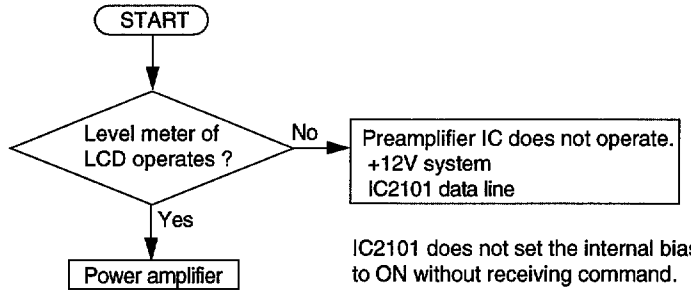
An error code will be displayed by the CD calendar in the LCD.

ERROR CODE	CAUSE	POINT TO BE CHECKED
1 : DC DET	DC appears in the SP terminal.	Defective IC1201
	Vp +17.5V is over 20V.	Improper operation of the regulator.→ See "Adjustment of Vp cannot made".
	Current passes toward the chassis.	Mica Sheet, 1Ω/1W (Power assy R1251) may be open.
2 : Vp	Vp is below 6V or over 20V.	Regulator
		Adjustment of Vp (Refer to page 48).
3 : DECK I	Initialization could not be made.	Output of +17V and +6V SINK may be improper.
4 : DECK II		Reel pulse may be improper.
		Deck mechanism lock (Lights up 3 and 4.)

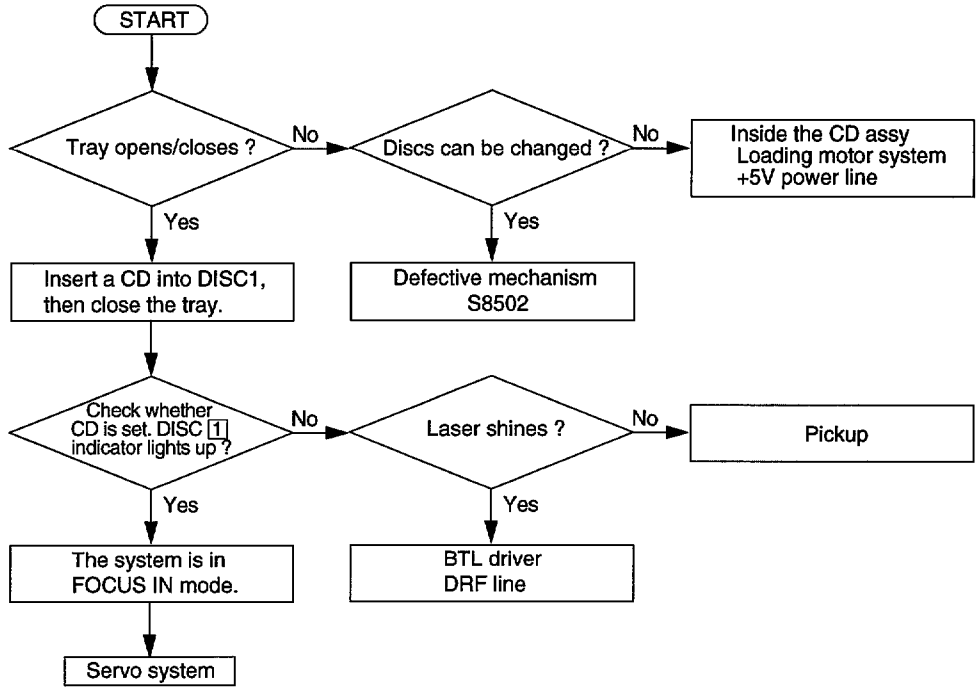
■ The power of the system does not turn to ON. The backlight does not light up.



■ No sound is output.



■ The system does not play back CD.



* CN8025 of the CD ASSY shows RF OUT and a tracking error. Use them for diagnosis.
No adjustment is required for the CD ASSY.
Disconnect the AC plug from the outlet and reset the microprocessor every time diagnosis is made.
If the system microprocessor determines a malfunction in CD, no command will be sent to the CD ASSY thereafter.

■ IC1003 (ICP of 400mA) is broken.

- The +5.6V line is short-circuited. The 40-core FFC is not inserted straight.
- The 6.8V Zener diode of the +5.6V line is short-circuited.
  D1003 in the Power assy
  D1809 in the LED assy
- If the ICP is broken after disconnecting the Power assy from AF assy, IC1001 (78M05) or its surrounding parts may be malfunctioning.
- The ICP is also broken by short circuit of IC1002 (4558).
- The ICP is also broken by B-E short circuit of Q1001 (power TR, 2SC5197/5200).

The stereo set does not operate at all if the IC1003 is broken.

■ The power of μ-COM does not switch ON. Nothing is displayed on the LCD.

- AC power is not supplied to the AC50/60Hz line of IC1901.
- Zener D1902 in the LCD assy is short-circuited because the headphone parallel jumper is inserted incorrectly (incorrect direction).
- Is +5.6V supplied?
- Is $\overline{\text{XRESET}}$ set to "H"? Is resetting completed?

■ IC1005 (ICP of 2A) is broken, although the microprocessor is operating.

- Does the ICP break after disconnecting from the AF assy?
  Yes → Inside the Power assy
  No → Outside the Power assy
- Connect only the AF assy. (Disconnect the headphone parallel jumper. CN1002)
  If the ICP still breaks, AF assy may have short-circuited, or a malfunction may have occurred in the front of +12V REG.
- Connect the 40-core FFC. Be sure that the flexible substrate is inserted correctly.
  If the ICP still breaks, short circuit may have occurred in the complex (solenoid, motor, electrostatic Zener, LED assy, and +5.6 V line).
- Connect the CD assy.
  If the ICP still breaks, short circuit may have occurred in the CD assy or the FFC of CD.

In such a case, the 5V PP REG is short-circuited. Check for short circuit in Q1003-1006 and D1011. (Because of the structure of the circuitry, short circuit is difficult to be detected by a tester. Replacing the circuitry as a whole will result in faster solution.)

NOTE

If the headphone parallel jumper is removed, +17V voltage is supplied to μ-COM in standby mode. The power amplifier and all power sources will turn to ON. However, an IC that does not operated without serial data cannot be diagnosed.

■ Although sound is output, discontinuance occurs at full power.

- Vp is adjusted to high level. (The protective function for the power-amplifier ICs turns to ON.)
- Dedicated speakers for the system are not used. The protective circuit turns to ON during clipping if speakers with high inductance are used even though they have high impedance.
- IC1201 (TDA8560Q) is malfunctioning. → Replace the IC.
- LPF(C1201, C1202 [2200pF]) of IC1201, are not installed.If they are not installed, the system interferes with the preamplifier IC and causes oscillation, resulting in muted IC1201.
- Check for short circuit of the negative ⊖ terminals of L/R if the measuring instrument is connected to the SP terminal. If line noise from the measuring instrument is added, the power amplifier IC mutes and causes cracking noise.
- The power amplifier or +17V REG oscillates. Check Pin7 of IC1002 (4558) for major oscillation waveform appearing at the same time as with the cracking noise.

NOTE

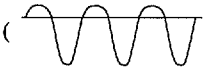
The power amplifier IC tends to cause discontinuance of sound with a slight oscillation or high-frequency noise.

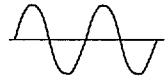
■ Large popping noise is output only from the headphone when turning the power to ON/OFF.

- The following headphone matrix resistors may be incorrect or disconnected.
  R1221 and R1222 (POWER ASSY)
  R1201 and R1202 (DISPLAY ASSY)
- H.GND of J1201 is disconnected.

■ The following symptoms occur if IC1202 (0.4A) is broken.

For SIG GND

- The top and bottom portions of waveforms () have different gain.

  Proper waveforms () are obtained with load resistance.

- This ICP is broken when +B is supplied to the heat sink because micanite is not installed, or when IC1201 power amplifier ICs are malfunctioning.

■ If Mica Sheet for the power transformer is not installed ?

- +UNREG will be supplied to R1251 (1Ω,1W) of the Power assy, making the resistor open (or increasing the resistance value).
- Current will be supplied to the rear part of IC1201 of the Power amplifier from the heat sink, resulting in incomplete functioning of the IC. At the worst, ICP, Zener diode, etc. will be destroyed.
- Power transformer Q1001 will not be destroyed.
- If a power source without breaker is used, the system stops demonstration mode 1 to 2 seconds after the power is turned ON, and forcedly enters standby mode. Error code [2] (or [1]) lights up.

NOTE

Mica Sheet is placed higher than the heat-sink bracket. Thus, whether Mica Sheet is installed or not can be checked without removing the bracket.

■ Adjustment of Vp cannot be made. Cannot change from +17V.

- If +5.6V (for μ-COM) correctly output? → Correct the 5.6V system.
- Is 5.6V supplied to Pin 6 of IC1002 (4558)? This IC is Vref of +17V.
- Check the voltage of Pin7 of IC1002 (4558).

  Cannot be changed from the Pin 8 side. → Short circuit in Q1001, Q1002, D1008, or Q1008

  Cannot be changed form the Pin 4 side. → Q1001, Q1002, D1008, R1018, or Q1008 is open. Check whether UNREG voltage is supplied.

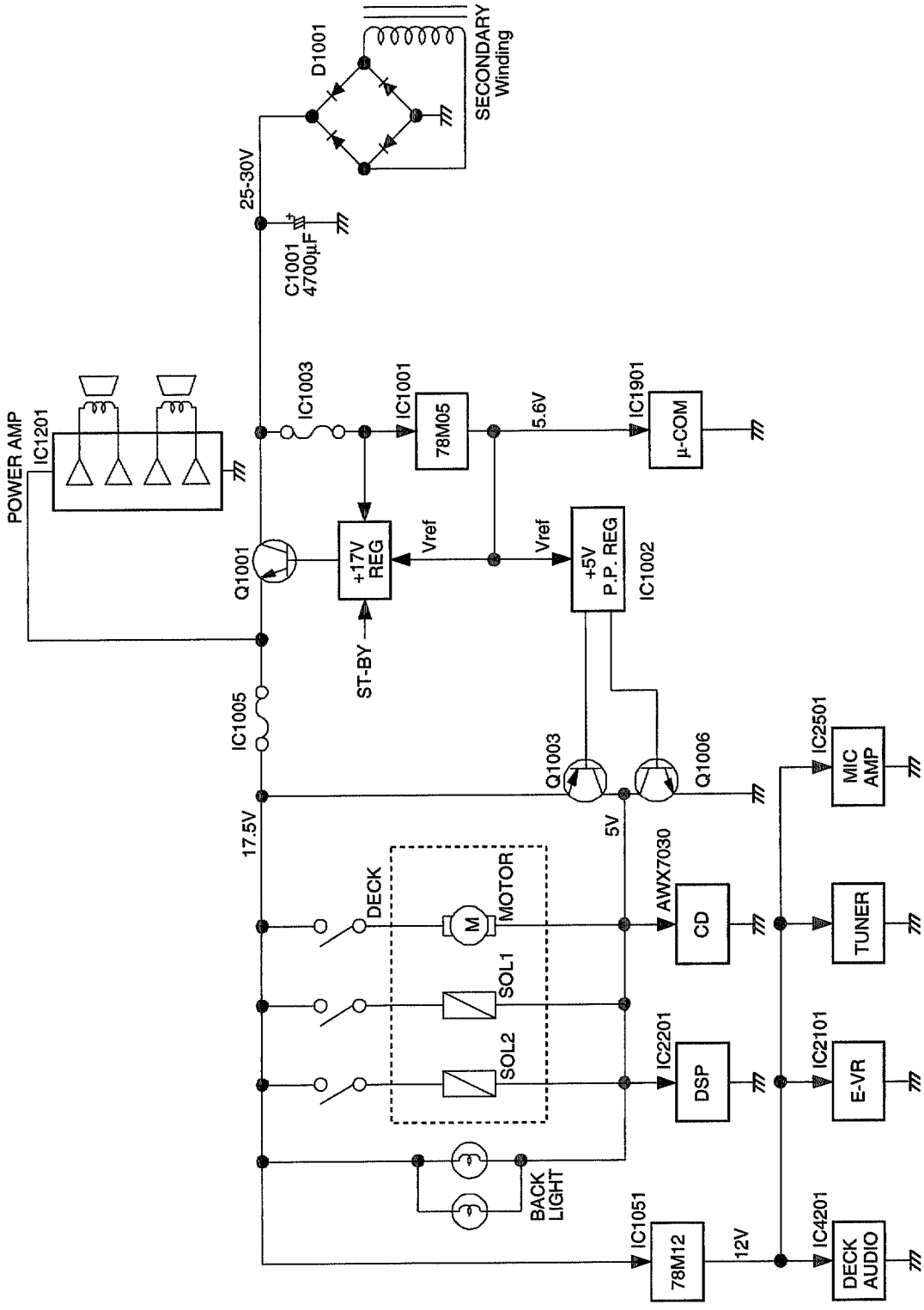
  Otherwise, IC1002 is malfunctioning.
- Check for short circuit in D1014.
- IC1081 (LED driver in the LED assy) is not functioning completely. Lift the ST-BY pin of CN1002 to adjust the IC.
- Check if R1251 (1Ω, 1W) is open. Chassis GND may be lifted.
- If Vp is dislocated extremely, the microprocessor gives instruction to the system to enter standby mode. Error code [2] lights up.
  If this is troublesome, leave ST-BY of CN1002 open so that +17V is maintained during standby mode.

NOTE

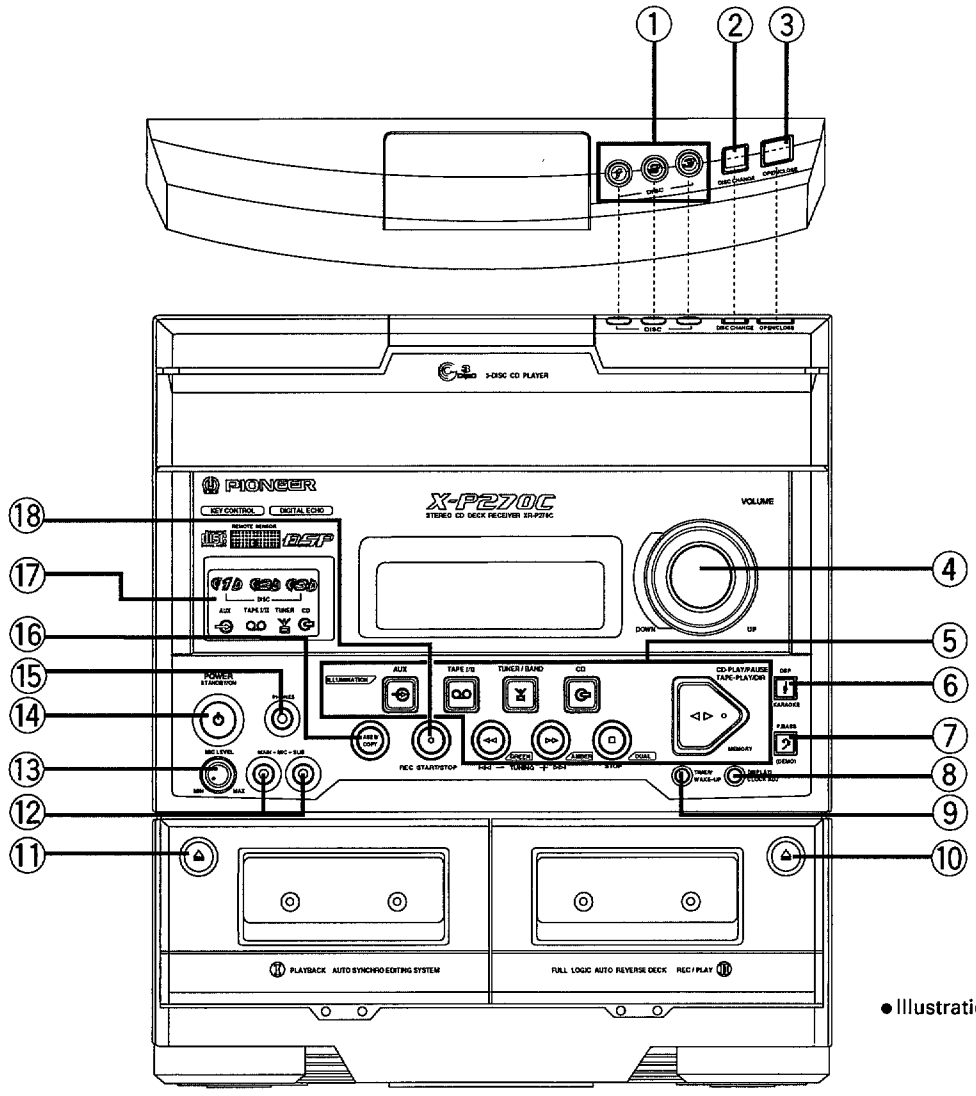
Vp adjustment is completed in the Power assy. Therefore, it checking can be made by removing the headphone parallel jumper (the system will not enter standby mode) and AF ASSY.

7.3 BLOCK DIAGRAM

● POWER SUPPLY MAP



8. PANEL FACILITIES AND SPECIFICATIONS



● Illustration shows model XR-P270C.

① DISC select buttons (1 – 3)

② DISC CHANGE button

③ CD OPEN/CLOSE button

④ VOLUME control

⑤ Function buttons

⑥ XR-P270C: DSP/KARAOKE mode button
XR-P170C: SFC/KARAOKE mode button

⑦ P.BASS (DEMO) button
Set to ON to produce powerfully enhanced bass sound.

⑧ DISPLAY/CLOCK ADJ button

⑨ TIMER/WAKE-UP button

⑩ DECK II EJECT (⏏)

⑪ DECK I EJECT (⏏)

⑫ MIC MAIN, SUB jacks

⑬ MIC LEVEL control

⑭ POWER (STANDBY/ON) button

⑮ Headphones jack (PHONES)

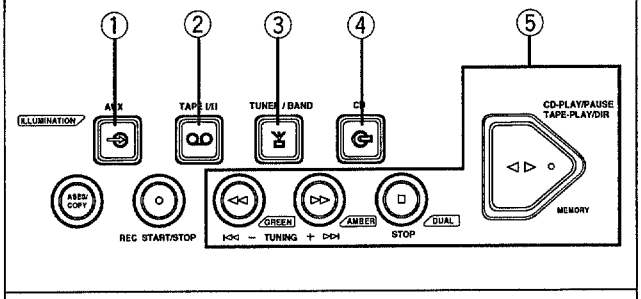
⑯ ASES/COPY button

⑰ DISC indicator & Function indicator

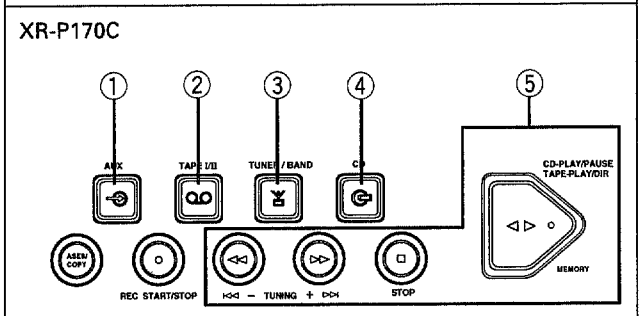
⑱ REC START/STOP button

The function indicator ⑰ also serves as a standby indicator, so your selected function continues to be illuminated even after the power is turned off.

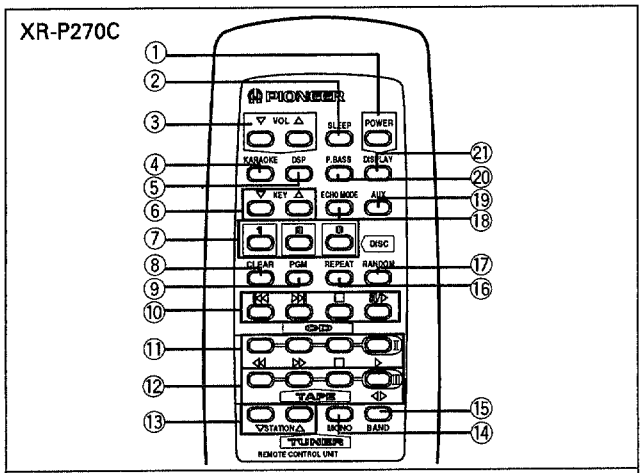
XR-P270C



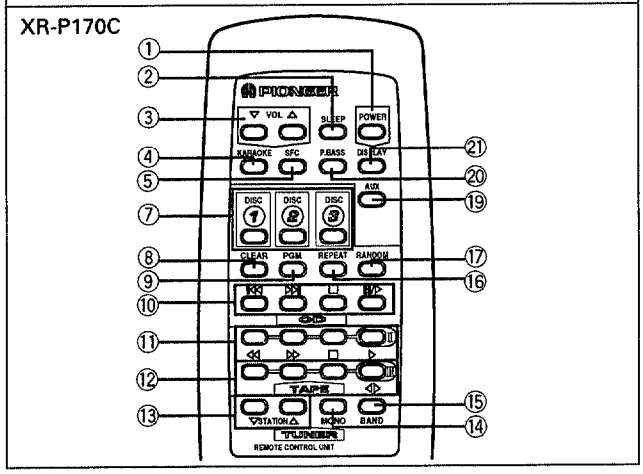
XR-P170C



XR-P270C



XR-P170C



Function button section

① AUX function button
② TAPE I/II function button
③ TUNER/BAND function button
④ CD function button
⑤ Common operation buttons

- Roles of the common operation buttons. (The roles of the buttons vary depending on the input functions as shown below.)

During CD input

: Play/Pause button
: Stop button
: Fast forward/track search button
: Fast reverse/track search button

During cassette deck input

: Play button/Tape transport direction
: Stop button
: Fast forward button
MS button (XR-P270C only)
: Rewind button
MS button (XR-P270C only)

During tuner operation

: Station memory button
: Frequency & Station + (up) button
: Frequency & Station – (down) button

Remote control unit

① POWER button
② SLEEP button
③ VOLUME buttons
④ KARAOKE button
⑤ DSP button (XR-P270C only) SFC button (XR-P170C only)
⑥ KEY control buttons (XR-P270C only)
⑦ DISC select buttons
⑧ CLEAR button
⑨ PGM button
⑩ CD operation buttons
(Track search ⏮ ⏭, Stop ■, Pause/Play ⏸/▶)
⑪ TAPE I operation buttons
(Fast ◀◀ ▶▶, Stop ■, Play ▶)
⑫ TAPE II operation buttons
(Fast ◀◀ ▶▶, Stop ■, Play ◀ ▶)
⑬ STATION buttons
⑭ MONO button
⑮ BAND button
⑯ REPEAT button
⑰ RANDOM button
⑱ ECHO MODE button (XR-P270C only)
⑲ AUX button
⑳ P.BASS button
㉑ DISPLAY button

STEREO CD CASSETTE DECK RECEIVER

Amplifier Section

Continuous power output (RMS)
XR-P270C ..... 33 W + 33 W (1 kHz, T.H.D. 10 %, 4 Ω)
XR-P170C ..... 25 W + 25 W (1 kHz, T.H.D. 10 %, 4 Ω)

FM/AM Tuner Section

FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz
Antenna Input ..... 75 Ω unbalanced

AM Tuner Section

Frequency Range
With 9 kHz step ..... 531 kHz to 1,602 kHz
With 10 kHz step ..... 530 kHz to 1,700 kHz
Antenna ..... Loop antenna

CD Section

Type ..... Compact disc digital audio system
Wow and Flutter ..... Limit of measurement (±0.001% W.PEAK) or less (EIAJ)

Cassette Deck Section

Systems ..... 4-track, 2-channel stereo
Heads ..... Recording/playback head x 1
Playback head x 1
Erasing head x 1
Motor ..... DC servo motor x 1
Tape type ..... TYPE I (Normal) tape

Miscellaneous

Power Requirements ..... AC 110-127/220-240 V (switchable), 50/60 Hz
Power Consumption
XR-P270C ..... 210 W
XR-P170C ..... 170 W
Dimensions ..... 270 (W) x 300 (H) x 295 (D) mm
Weight (without package)
XR-P270C ..... 6.1 kg
XR-P170C ..... 5.9 kg

Accessories

Operating Instructions 1
Remote Control Unit 1
Dry Cell Batteries (AA/R6P) 2
FM Antenna 1
AM Loop Antenna 1

NOTE:
Specifications and design are subject to possible modifications without notice, due to improvements.

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

① Remote control unit x 1
The illustration shows the remote control unit supplied with the XR-P170C. The remote for the XR-P270C is different.
② AA/R6P dry cell batteries x 2
③ FM antenna x 1
④ AM loop antenna x 1